Rutgers University – New Brunswick

Graduate Program in Kinesiology and Applied Physiology

STUDENT HANDBOOK

Academic Year 2024-2025
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WELCOME AND GREETINGS FROM THE FACULTY

We are pleased to welcome you to the Graduate Program in Kinesiology and Applied Physiology (KAP), housed in the Department of Kinesiology & Health and SGS at Rutgers. Through coursework and research, our graduate students learn critical thinking, scientific inquiry, and practical applications to allow them to meet the demands of careers in academic science, biotech and pharma, the health and wellness industry, and related health and sports fields. Kinesiology and applied physiology have become increasingly valued disciplines given the trends in obesity, heart disease, hypertension, type II diabetes, cancer, and other non-communicable chronic diseases. The role of physical activity, exercise, and related lifestyle factors (e.g., sleep, nutrition, substance use) in the prevention and treatment of these conditions, as well as in the treatment of depression, anxiety, and other stress-related disorders has received considerable attention. The research developed in the field of Kinesiology has shaped the guidelines for physical activity promoted by major health organizations (e.g., US Department of Health and Human Services) and is strongly influencing the current social narrative around health. In addition, the field of Applied Physiology emphasizes organ systems, especially musculoskeletal, cardiovascular, respiratory, neural, and digestive systems, in health research. Linking these systems to human behavior and clinical health outcomes has proven to be a successful path to federal grant funding by our faculty and students.

The purpose of this handbook is to help graduate students navigate the curriculum of our program. It is a repository of all current policies for the program. It can serve as a resource for current mentors and for all others who are interested in our program. It should be used in conjunction with the Rutgers School of Graduate Studies (SGS) materials. All students are accountable to the bylaws of the KAP program and the SGS. Graduate mentors can assist students in navigating requirements, but cannot interpret policies, rules, or regulations of KAP or SGS. Likewise, peer advice can be useful, but should not be confused with official KAP and SGS information. Any questions or concerns should be directed to the Graduate Program Director (GPD) or the Graduate Program Administrator, who will answer them or direct the student to the proper administrator to find the answer. Students are responsible for meeting all program requirements.

This handbook will be updated annually. If substantive changes occur from year to year, current students can discuss with their mentor and the program director to which degree requirements they should adhere.

MISSION STATEMENT

It is the mission of the KAP Graduate Program at Rutgers University to train the next generation of researchers, educators, and practitioners in the areas of human health, physiology, and performance. Demand for individuals with advanced education in these fields continues to grow, as demonstrated by the current popularity of health-focused college majors (including exercise science), the expansion of kinesiology faculties around the country, the ever-increasing number of start-up and corporations developing health-related technologies that track physiological function across organ systems, the multi-billion dollar fitness industry, and the continued allocation of federal funding for behavior change research to reduce the public health burden of chronic disease by exploring new ways to motivate and support greater physical activity, better sleep, healthy diet, and less substance use.

The KAP program is committed to creating a supportive and stimulating learning environment for our students. Not all students will join our program with the same long-term career goals, and we encourage our students to tailor the curriculum to their chosen career path. In addition to core course requirements and immersive research experiences, our faculty will direct students towards scientific writing, pedagogy, and/or business courses that we believe will best position them for success after graduate school. Our goal is that students see themselves as graduates of the KAP program, not just graduates of a single lab.

DIVERSITY STATEMENT

The KAP Program supports an inclusive learning environment wherein diversity and authenticity are valued.
We are committed to creating a culture of equality that respects the diverse voices of our students, faculty and staff. We will continuously strive to create a curriculum and academic environment to reflect the community we serve, and drive innovation, social responsibility and excellence. Our diversity in thought, skill, and academic discipline is a resource and strength, which stands to benefit the whole and positively contribute to university and global reach.

FACULTY

Our faculty is comprised of researchers across multiple scientific disciplines and Rutgers units. Core faculty members typically make substantive contributions to the KAP program as measured by: (a) having an active research program related to kinesiology or applied physiology, (b) serving as lead instructors for KAP courses, (c) actively mentoring KAP students through individual primary mentorship, student committee participation, and program service. To learn more about each faculty’s research program, click here.

**Department of Kinesiology and Health Faculty**

Brandon L. Alderman, Ph.D.
KINESIOLOGY & HEALTH DEPARTMENT CHAIR
Associate Professor, Department of Kinesiology and Health
Loree Gym, Room 107, Douglass Campus
Laboratory: Health Neuroscience Lab, Loree 060

Marsha E. Bates, Ph.D.
DEPARTMENT VICE CHAIR OF RESEARCH
Distinguished Professor, Department of Kinesiology and Health
Loree Classroom, Room 104, Douglass Campus
Laboratory: Cardiac Neuroscience Lab, Loree 066

Jennifer Buckman, Ph.D.
KAP GPD
Professor, Department of Kinesiology and Health
Loree Classroom, Room 118, Douglass Campus (Office)
Laboratory: Cardiac Neuroscience Lab, Loree 066

Sara C. Campbell, Ph.D.
Associate Professor, Department of Kinesiology and Health
Loree Classroom, Room 112, Douglass Campus (Office)
Laboratory: Exercise and Gastrointestinal Health Laboratory, IFNH, Room 250

Anthony Delli Paoli, Ph.D.
Assistant Teaching Professor, Department of Kinesiology and Health
Loree Classroom, Room 002, Douglass Campus (Office)
Laboratory: Psychosocial Processes in Health Lab, Loree Room 065

Katie Devine, Ph.D.
Associate Professor, Rutgers Cancer Institute of New Jersey
Rutgers Cancer Institute, Room 4512A (Office)
Laboratory: Devine Research Program, Rutgers Cancer Institute, Room 4512A

Ryan Dougherty, Ph.D.
Assistant Professor, Department of Kinesiology and Health
Loree Classroom, Room 110, Douglass Campus (Office)
Laboratory: tbd
Andrew Gow, Ph.D.
Professor, Department of Pharmacology and Toxicology
William Levine Hall, Room 009, Busch Campus (Office)
Laboratory: Reactive Oxygen and Nitrogen Species Laboratory, Room 009

Erik Hummer, Ph.D.
Assistant Professor, Department of Kinesiology and Health
Loree Classroom, Room 108, Douglass Campus (Office)
Laboratory: Rutgers Applied Biomechanics Laboratory (RABL), Loree Room 103

Peter Kokkinos, Ph.D.
Professor Classroom, Department of Kinesiology and Health
Loree, Room 102, Douglass Campus (Office)

Edmund C. Lattime, Ph.D.
Professor, Rutgers Cancer Institute of New Jersey
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Steve Malin, Ph.D.
Associate Professor, Department of Kinesiology and Health
Loree Classroom, Room 106, Douglass Campus
Laboratory: Applied Metabolism & Physiology Laboratory (AMP Lab) Loree, Room 107

Kenneth H. McKeever, Ph.D., FACSM
Professor, Department of Animal Sciences
Barlett Hall, Room 003, Cook Campus
Laboratory: Equine Exercise Physiology Laboratory, Building 6335 and McKeever Lab Room, Barlett Hall, Room 006

Sue A. Shapses, Ph.D., R.D.
Professor, Department of Nutritional Sciences
Foran Hall, Room 195a, Cook Campus (Office)
Laboratory: Nutrition, Metabolism, & Bone, Foran Hall, Rooms 197 & 171

Labros S. Sidossis, Ph.D.
Distinguished Professor, Department of Kinesiology and Health
Loree Classroom, Room 018, Douglass Campus

Andea Spaeth, Ph.D.
Associate Professor, Department of Kinesiology and Health
Loree Gym, Room 002, Douglass Campus
Laboratory: Rutgers Sleep Lab, Loree 140

Affiliated Rutgers Faculty

Tracy G. Anthony, Ph.D.
Associate Professor, Department of Nutritional Sciences
Foran Hall 166, Cook Campus (Office)

Daniel J. Hoffman, Ph.D.
Associate Professor, Department of Nutritional Sciences
Food Science Building 107, Cook Campus
Karyn Malinowski, Ph.D.
Professor, Department of Animal Sciences
ASB II, Cook Campus

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Associate Professor, Department of Animal Sciences
Bartlett Hall 213E, Cook Campus (Office)

Administrative Staff

Jenny Gehrmann
Senior Department Administrator
Department of Kinesiology and Health
Contact for questions related to the department, TA appointments (tuition reimbursement), and paychecks

Jennifer Chudy Simon
Graduate Program Coordinator
Kinesiology and Applied Physiology Graduate Program
Contact for questions related to the program, registration and enrollment, Special Permission Numbers (SPN)

Janice Nappe
Department Assistant
Contact for questions related to reimbursements, travel planning, event planning
DEGREE REQUIREMENTS

Masters of Science
The M.S. in Kinesiology and Applied Physiology is a coursework-focused degree that enriches students with a broad knowledge base and scientific foundation to support exercise- and health-focused careers and doctoral aspirations. We currently offer 3 M.S. tracks: 1 thesis/research track and 2 non-thesis/applied tracks. Students typically complete this degree in two years and coursework credits must be completed within three years of program enrollment unless an extension of time is granted by the GPD. Registration must be continuous from admission until the time the degree is conferred; however, exceptions to this can be made by the GPD. Students who require additional time to write their theses/complete their Capstone projects must get approval from the GPD and maintain continuous registration with a minimum of one research credit per semester for a maximum of three additional semesters.

Students seeking an M.S. are not eligible for teaching assistantships (TAs) and are typically personally responsible for applicable tuition costs and fees. Other sources of funding may be available, but these are not provided by the program or the SGS; students should consult potential mentors directly about the availability of hourly pay or research assistantships (RAs). Please note that such opportunities are more the exception than the rule.

**Program prerequisites** include one year of general biology (plus lab), one year of general chemistry, exercise physiology (plus lab), exercise testing and prescription, and 12 additional credits in advanced physiology, kinesiology/exercise science, chemistry, physics, calculus, or psychology. In all classes, students must have earned a B or better. Prior research experience is optional.

**THESIS TRACK**

This track is best suited for students who are contemplating a career as an academic or industry scientist and who have an interest (or potential interest) in pursuing a doctoral degree. Graduation requires a minimum of 36 credits, which must include 30 course credits and 6 thesis/research credits. Core requirements comprise 16 of the required course credits and students can select electives (usually 4) that best align with their future education and career goals. This track requires a written research-focused thesis and oral defense.

**Core Courses**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Topic Overview</th>
<th>Semester</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:501</td>
<td>Advance Exercise Physiology</td>
<td>Organ systems, nutrition</td>
<td>Fall</td>
<td>3</td>
<td>Dougherty</td>
</tr>
<tr>
<td>16:572:505</td>
<td>Principles of Research</td>
<td>Skills for scientific careers</td>
<td>Spring</td>
<td>3</td>
<td>Spaeth</td>
</tr>
<tr>
<td>various</td>
<td>Statistics</td>
<td>See options on p. 19</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>16:572:511</td>
<td>Adv Applied Human Phys 1</td>
<td>Cardiovascular, pulmonary, renal</td>
<td>Fall</td>
<td>3</td>
<td>Kokkinos</td>
</tr>
<tr>
<td>16:572:512</td>
<td>Adv Applied Human Phys 2</td>
<td>Musculoskeletal, GI, endocrine</td>
<td>Spring</td>
<td>3</td>
<td>Campbell</td>
</tr>
<tr>
<td>16:572:520</td>
<td>Colloquium</td>
<td>Reading and discussing research</td>
<td>Fall</td>
<td>1</td>
<td>Bates</td>
</tr>
</tbody>
</table>

**Electives Courses**

Selected from those offered as part of the non-thesis tracks (see below)

**Research Credits**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Topic Overview</th>
<th>Semester</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:701</td>
<td>Thesis Research</td>
<td>Independent research project</td>
<td>Fall &amp; Spring</td>
<td>3</td>
<td>Primary mentor</td>
</tr>
</tbody>
</table>

**Hypothetical timeline of study**

**2-year program**

<table>
<thead>
<tr>
<th>Year 1, Fall</th>
<th>Year 1, Spring</th>
<th>Year 2, Fall</th>
<th>Year 2, Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Registrations</td>
<td>Principles Research = 3 cr</td>
<td>Statistics = 3 cr</td>
<td>Elective 4 = 3 cr</td>
</tr>
<tr>
<td>Adv Ex Phys = 3 cr</td>
<td>Appliance Human Phys II = 3 cr</td>
<td>Elective 3 = 3 cr</td>
<td>Seminar (elective) = 1 cr</td>
</tr>
<tr>
<td>Ethics (elective) = 1 cr</td>
<td>Colloquium = 1 cr</td>
<td>Research = 3 cr</td>
<td>Research = 3 cr</td>
</tr>
<tr>
<td>Elective 1 = 3 cr</td>
<td>Elective 2 = 3 cr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Thesis Activities**

create thesis committee plan thesis project begin thesis project complete thesis project
### 4+1 Program

<table>
<thead>
<tr>
<th>Year 1, Fall</th>
<th>Year 1, Spring</th>
<th>Year 2, Fall</th>
<th>Year 2, Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Registrations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adv Ex Phys = 3 cr</td>
<td>Elective 3 = 3 cr</td>
<td>Statistics = 3 cr</td>
<td>Principles Research = 3 cr</td>
</tr>
<tr>
<td>Elective 1 = 3 cr</td>
<td>Elective 4 = 3 cr</td>
<td>Appl Human Phys = 3 cr</td>
<td>Appl Human Phys II = 3 cr</td>
</tr>
<tr>
<td>Elective 2 = 3 cr</td>
<td>Seminar (elective) = 1 cr</td>
<td>Ethics (elective) = 1 cr</td>
<td>Colloquium = 1 cr</td>
</tr>
<tr>
<td><strong>Thesis Activities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>create thesis committee &amp; plan thesis project</td>
<td>begin thesis project</td>
<td>complete thesis project</td>
<td></td>
</tr>
</tbody>
</table>

### Registration

Students must register each semester at [https://sims.rutgers.edu/webreg/](https://sims.rutgers.edu/webreg/). It is useful to briefly meet, or communicate via email, with the GPD before each semester to ensure course registration and research credit plans are correct for ensuring on-time graduation. Some courses require a Special Permission Number (SPN) - contact the graduate program administrator.

### Thesis

**Within the first 6 weeks of the first semester.** Students must identify/confirm a primary mentor. Mentors are typically selected in advance but should be confirmed upon meeting in person and working in the lab.

**By the end of the first semester.** With assistance from the primary mentor, students must identify a research topic/area and assemble a thesis committee that consists of at least 3 KAP graduate program faculty (the primary mentor serves as chair, 2 additional faculty are required). Students are expected to initiate and maintain direct communication with each committee member rather than using their primary mentor as an intermediary. This provides the opportunity for professionalism and rapport building. The membership of the thesis committee must be submitted in writing to the GPD by the end of the first semester.

**The second semester** in the program should focus on thesis planning and development. Thesis research should have elements of independence but is not expected to be at the level of a doctoral project. Students may select a component of their primary mentor’s ongoing research; utilize previously collected data for a new purpose; or design and conduct a new small study. It is important to make sure that the selected project can be completed within ~2 semesters; considers other coursework and responsibilities; and leaves an appropriate amount of time for analysis and writing – with all final documents due to SGS by April 1st. Students are strongly encouraged to begin meeting with committee members during the brainstorming and planning phase to draw on the faculty’s content knowledge, their study design and statistical skills, and their ability to assess feasibility (likelihood of completing the project on time).

A written thesis proposal must be presented to the thesis committee before the beginning of the third semester. The proposal should be an overview of the project, with a strong emphasis on the study rationale, methods, and a detailed timeline for the project (by end of Year 2). The specific style of the written proposal (i.e., general essay format; manuscript intro and method style; bulleted lists) should be discussed in advance with all committee members. The proposal should be approved by the committee at a group meeting scheduled prior to or early in the third semester to ensure the student has a full year to complete the proposed project. The committee meeting should include discussion of any concerns about feasibility, depth, or scientific appropriateness before the thesis work commences. Upon approval, the GPD must be notified.

**After approval of the thesis committee,** the committee must be convened at least once per semester to track progress of the student’s thesis project. Thesis committee activities as well as progress towards graduation timelines will be discussed at the end-of-semester meetings with the GPD.

**Prior to beginning the thesis project,** students must obtain all appropriate approvals (e.g., IRB/IACUC, biosafety, transportation). It may be more time efficient to modify an existing protocol, when possible, but a new study may require a new protocol. Students can submit documents to Rutgers regulatory boards for master’s research as PI, but the primary mentor must review and approve the project (and be listed as mentor).
During the second year in the program, the student should be working on the thesis project and completing coursework. The project culminates in a written thesis and oral defense. There is no ‘correct’ length for a thesis and there are several general structures that are considered acceptable for the KAP MS program. Generally, the document should open with a general overview / literature review / explanation of problem, followed by the methods and procedures, results, and a discussion of the significance of findings and possible next steps. A manuscript style/length thesis is acceptable. Formatting, style, and referencing should follow the Thesis and Dissertation Style Guide. If in doubt, please contact the GPD. For an on-time graduation (end of 2nd year), the thesis should be defended prior to April 1st.

NON-THESIS/APPLIED TRACK

This track is best suited for students who are contemplating a career in the fitness, sports, or wellness industry and who have an interest (or potential interest) in obtaining professional certifications. The non-thesis track includes two specializations: 1) Strength & Conditioning Specialization and 2) Clinical Exercise Physiology specialization. These specializations have shared general course work, specialization-specific course work, and internship requirements that will prepare students to obtain professional certifications along their path to joining a career in the fitness, sports, or wellness industries. While the SGS requires a minimum of 30 credits for graduation, of which 25 must be course credits and 3 must be Capstone credits; those interested in certifications will need to exceed these minimum standards as detailed below.

STRENGTH & CONDITIONING (S&C) SPECIALIZATION

<table>
<thead>
<tr>
<th>General Coursework (17 credits)</th>
<th>Course #</th>
<th>Course Name</th>
<th>Topic Overview</th>
<th>Semester</th>
<th>Credits</th>
<th>Instructor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:501 Advanced Exercise Physiology</td>
<td>16:572:501</td>
<td>Advanced Exercise Physiology</td>
<td>Organ systems, nutrition – aerobic and resistance</td>
<td>Fall</td>
<td>3</td>
<td>Dougherty</td>
</tr>
<tr>
<td>16:572:505 Scientific Literature &amp; Research Methods</td>
<td>16:572:505</td>
<td>Scientific Literature &amp; Research Methods</td>
<td>Find, read, dissemination, and apply research to field</td>
<td>Fall</td>
<td>3</td>
<td>Buckman</td>
</tr>
<tr>
<td>16:572:519 Seminar in Exercise Science</td>
<td>16:572:519</td>
<td>Seminar in Exercise Science</td>
<td>Journal club design</td>
<td>Fall/Spring</td>
<td>1</td>
<td>Rotating</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Track-specific Coursework (9 credits)</th>
<th>Course #</th>
<th>Course Name</th>
<th>Topic Overview</th>
<th>Semester</th>
<th>Credits</th>
<th>Instructor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:509 Administration and Oversight</td>
<td>16:572:509</td>
<td>Administration and Oversight</td>
<td>Facility design, ethics, staffing, cleaning, emergency planning</td>
<td>2</td>
<td>[tbd]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Internship Credits</th>
<th>Course #</th>
<th>Course Name</th>
<th>Semester</th>
<th>Credits</th>
<th>Instructor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:605 Capstone Research</td>
<td>Fall/Spring</td>
<td>3</td>
<td>Internship director</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Registration

Students must register each semester at https://sims.rutgers.edu/webreg/. It is useful to briefly meet, or communicate via email, with the GPD before each semester to ensure course registration and research credit plans are correct for ensuring on-time graduation. Some courses require a Special Permission Number (SPN) - contact the graduate program administrator.
Internship/Field Experience
The internship/field experience must include 300 contact hours from a minimum of two substantially different experiences that vary by sport, sex, age, etc. A minimum of 75 hours for each experience is required and at least one must be 6 weeks in length. The supervisors for each experience must differ even if both experiences occur at the same site. Key experience areas include warm-up, flexibility training, exercise techniques, spotting, Olympic-style lifting, progressions/regressions, test selection and administration, program design, speed/agility/plymometric training, anaerobic and aerobic program design, and periodization.

Our program recommends 150 hours (10 hours per week for 15 weeks) in the Fall and Spring semesters of the second year. This is equivalent to 3 Capstone credits per semester. Time can be distributed across multiple internship experiences as determined in collaboration with the Graduate Internship Supervisor.

Example timeline of study
2-year program

<table>
<thead>
<tr>
<th>Year 1, Fall</th>
<th>Year 1, Spring</th>
<th>Year 2, Fall</th>
<th>Year 2, Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
</tr>
<tr>
<td>Seminar = 1 credit</td>
<td>Seminar = 1 credit</td>
<td>Capstone = 3 credits</td>
<td>Capstone = 3 credits</td>
</tr>
</tbody>
</table>

4+1 program

<table>
<thead>
<tr>
<th>Senior Year, Fall</th>
<th>Senior Year, Spring</th>
<th>Year 2, Fall</th>
<th>Year 2, Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Literature (3)</td>
<td>Adv Sports Psych (3)</td>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
</tr>
<tr>
<td>Adv Ex Phys (3)</td>
<td>Motor Control (3)</td>
<td>Seminar = 1 credit</td>
<td>Capstone = 3 credits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capstone = 3 credits</td>
<td></td>
</tr>
</tbody>
</table>

Capstone
The final Capstone product may be a case study related to the internship; summary or highlights of one or all of the field experiences; or a pre-approved literature review (e.g., scientifically grounded project related to the S&C track). The final written product should be 6-10 pages, double-spaced, Arial 11 font or equivalent, and 1” margins. The S&C Capstone Evaluation Committee evaluates the final written document, course grades, and internship supervisor evaluations to determine readiness for graduation. Once approved for graduation, the student summarizes their Capstone work in a poster format to present at the Graduate Research in Interdisciplinary Biosciences (GRIB) conference in April of each year. Students are expected to stand with their poster and answer questions during the scheduled poster session.

Certification
The completion of the general and track-specific coursework will prepare students to sit for the examination to become a Certified Strength and Conditioning Coach (https://www.nsca.com/certification/cscs/). The internship/field experience will fulfill the certification contact hour requirements.

CLINICAL EXERCISE PHYSIOLOGY (CEP) SPECIALIZATION

General Coursework (17 credits)

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Topic Overview</th>
<th>Semester</th>
<th>Credits</th>
<th>Instructor *</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:501</td>
<td>Advanced Exercise Physiology</td>
<td>Organ systems, nutrition – aerobic and</td>
<td>Fall</td>
<td>3</td>
<td>Dougherty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>resistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:572:502</td>
<td>Exercise Prescription &amp; Programming</td>
<td>clinical-&gt;athlete, lifespan; speed,</td>
<td>Spring</td>
<td>3</td>
<td>Murray</td>
</tr>
<tr>
<td></td>
<td></td>
<td>agility, resistance, plyo, endurance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:572:505</td>
<td>Scientific Literature &amp; Research</td>
<td>Find, read, dissemination, and apply</td>
<td>Fall</td>
<td>3</td>
<td>Buckman</td>
</tr>
<tr>
<td></td>
<td>Methods</td>
<td>research to field</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:572:515</td>
<td>Muscular Injury and Biomechanics</td>
<td>Mechanisms of injury and recovery</td>
<td>Spring</td>
<td>3</td>
<td>Hummer</td>
</tr>
<tr>
<td>16:572:516</td>
<td>Advanced Sports Psychology</td>
<td>Motivation, adherence, goal setting,</td>
<td>Fall</td>
<td>3</td>
<td>Alderman/DelliPaoli</td>
</tr>
<tr>
<td></td>
<td></td>
<td>obstacles, managing/improving perf</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:572:519</td>
<td>Seminar in Exercise Science</td>
<td>Journal club design</td>
<td>Fall/Spring</td>
<td>1</td>
<td>Rotating</td>
</tr>
</tbody>
</table>
**Track-Specific Coursework (9 credits)**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Topic Overview</th>
<th>Semester</th>
<th>Credits</th>
<th>Instructor *</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:508</td>
<td>Administration and Oversight</td>
<td>risk minimization, professionalism, operations, collaboration, HIPAA</td>
<td>Spring</td>
<td>2</td>
<td>[tbd]</td>
</tr>
<tr>
<td>16:572:510</td>
<td>EKG</td>
<td>Clinical cardiovascular abnormalities</td>
<td>Spring</td>
<td>3</td>
<td>Giannelli</td>
</tr>
<tr>
<td>16:572:517</td>
<td>Clinical Exercise Physiology Theory</td>
<td>Clinical assessment and evaluation, safety, monitoring and supervising</td>
<td>Spring</td>
<td>4</td>
<td>Malin</td>
</tr>
</tbody>
</table>

**Internship Credits**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Semester</th>
<th>Credits</th>
<th>Internship director</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:605</td>
<td>Capstone Research</td>
<td>Fall/Spring</td>
<td>1-6</td>
<td></td>
</tr>
</tbody>
</table>

**Registration**

Students must register each semester at [https://sims.rutgers.edu/webreg/](https://sims.rutgers.edu/webreg/). It is useful to briefly meet, or communicate via email, with the GPD before each semester to ensure course registration and research credit plans are correct for ensuring on-time graduation. Some courses require a Special Permission Number (SPN) - contact.

**Internship/Field Experience**

The internship/field experience must include 600 hours of contact in a clinical setting with clinical populations. Clinical experiences can include clinical assessment; exercise testing, prescription, and training; electrocardiograph; patient education and counseling; physiological disease management and direct/assisted experiences that include exercise assessment, prescription, supervision, counseling and education. Work with athletes or other healthy populations is not allowed, nor are personal training session hours or observational/ non-clinical hours. The American College of Sports Medicine (ACSM) suggests the following breakdown for clinical hours based on specific patient populations:

<table>
<thead>
<tr>
<th>Condition or Disease</th>
<th>Master’s hours</th>
<th>Bachelor’s hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>180</td>
<td>360</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Obesity/Metabolic</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>Orthopedic/Musculoskeletal</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Neuroplastic</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Frailty</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Behavior Change/Education</td>
<td>70</td>
<td>140</td>
</tr>
<tr>
<td>Neuromuscular</td>
<td>40</td>
<td>80</td>
</tr>
</tbody>
</table>

**Table 3. Recommended distribution of clinical experience**

Total: 600, 1,200

Our program recommends two options for achieving 600 contact hours during the 2-year program, detailed below. A 3-credit course translates into 10 contact hours/week for the 15-week semester; 4.5 credit courses translate into 15 contact hours/week for the 15-week semester. Time can be distributed across multiple internship experiences as determined in collaboration with the Graduate Internship Supervisor.

**Example 1 timeline – equal distribution across 3 semesters**

<table>
<thead>
<tr>
<th>Year 1, Fall</th>
<th>Year 1, Spring</th>
<th>Year 2, Fall</th>
<th>Year 2, Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
</tr>
<tr>
<td>Seminar = 1 credit</td>
<td>Capstone = 4.5 credit</td>
<td>Capstone = 4.5 credits</td>
<td>Capstone = 4.5 credits</td>
</tr>
</tbody>
</table>

**Example 2 timeline – most contact hours in last semester**

<table>
<thead>
<tr>
<th>Year 1, Fall</th>
<th>Year 1, Spring</th>
<th>Year 2, Fall</th>
<th>Year 2, Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
<td>2 courses = 6 credits</td>
</tr>
<tr>
<td>Seminar = 1 credit</td>
<td>Capstone = 3 credits</td>
<td>Capstone = 3 credits</td>
<td>Capstone = 6 credits</td>
</tr>
</tbody>
</table>
Capstone
The final Capstone product may be a case study related to the internship, summary and highlights of one or all of the field experiences, or a pre-approved literature review / scientifically grounded project related to the CEP track. The final written product should be 6-10 pages, double-spaced, Arial 11 font or equivalent, and 1” margins. The CEP Capstone Evaluation Committee evaluates the final written document, course grades, and internship supervisor evaluations to determine readiness for graduation. Once approved for graduation, the student summarizes their Capstone work in a poster format to present at the Graduate Research in Interdisciplinary Biosciences (GRIB) conference in April of each year. Student are expected to stand with their poster and answer questions during the scheduled poster session.

Certification
The completion of the general and track-specific coursework will prepare students to sit for the examination to become a Certified Clinical Exercise Physiologist (https://www.acsm.org/docs/default-source/certification-documents/cep/acsm-cep2-0-requirements-(final).pdf). The internship/field experience will fulfill the certification contact hour requirements.

GRADUATION

Please be sure that there are no outstanding fees or holds on your university account prior to the end of the final semester.

Although there should be ample opportunity to discuss the overall graduate experience throughout the student years, an “exit interview” would also be greatly appreciated. This interview can be with the director, other departmental administrators (e.g., DKH chair or vice chair of research), or another appointed individual. The goal of these meetings is to ensure that the program continues to meet the needs of its students.

Deadlines
All forms listed below must be submitted by ~October 1 to graduate with an October degree.
All forms listed below must be submitted by ~January 1 to graduate with a January degree.
All forms listed below must be submitted by ~April 1 to graduate with a May degree.
Exact deadline dates are updated yearly and can be found on the SGS website.

Required Forms
The student is responsible for completing the following 4 forms for graduation. They must be sent in one email to sgs.degree.submissions@grad.rutgers.edu, and cc kap.director@kines.rutgers.edu before the deadline listed above. See the SGS graduation checklist for more details.
1) Diploma Application – submit PDF of email confirmation
2) Application for Master’s Degree with signed Thesis Title Page – documents should be presented to committee at the time of examination. Signatures must be verifiable. Use Docusign (see p. 40).

Students on the Thesis track must also submit the following in the same email as the 2 items listed above.
3) Degree Candidate Responsibility Statement
4) Publishing Agreement - Once complete, click on "Manage this ETD”> "View ETD Details”> "Print your Details Page”. Submit “ETD DETAILS” page as a PDF.
DEGREE REQUIREMENTS

Doctor of Philosophy
The Ph.D. is a research degree that prepares students to become independent scholars in a variety of conceptual areas that span physiological systems, metabolism, human behavior, and performance. A Ph.D. signifies that the holder is capable of original and ethical research in a particular field and of making a significant contribution to that field. To attain this degree, graduate students, guided by their own interests and by the expertise of their graduate mentors, develop an individual plan of study that includes conducting a research project from beginning to end. The research project culminates in a substantive body work that is written into a dissertation and orally presented to the students and faculty of the program.

The SGS publishes a graduation checklist. Students are responsible for ensuring all requirements are completed before graduation. For KAP, a minimum of 72 semester credits is required to earn a Ph.D. (32 course credits; 34 research credits; the remaining 6 credits may be earned from coursework or research). Four major components must be completed satisfactorily to earn a doctoral degree, including:

- Core and elective coursework
- Qualifying examination (written and oral)
- Substantive independent research
- Submission and oral defense of research proposal and dissertation

However, graduate students should not regard their program of study as the mere accumulation of numerical credits and the meeting of formal requirements. Progress toward mastery of a discipline depends upon the student's initiative and consistent guidance of the mentors and administrators of KAP.

**Program prerequisites** include one year of general biology (plus lab), one year of general chemistry, exercise physiology (plus lab), and 12 additional credits in advanced physiology, kinesiology/exercise science, chemistry physics, calculus, or psychology. In all classes, students must have earned a B or better. Prior research experience is expected.

**COMPETENCIES EXPECTED AT PROGRAM COMPLETION**

The following can be used as guidelines for graduate training and dissertation project development. Upon completion of training, the KAP doctoral program expects that our students:

1. possess critical analytic skills;
2. can read and effectively critique scientific literature in their area of expertise;
3. can use core knowledge to select and formulate research questions;
4. have general skills in research design, data collection, data management, and data analysis;
5. can design and implement rigorous research protocols in their field;
6. can work with data, data programs, graphing and statistical software;
7. can present research findings in writing and orally in a professional and scientific manner.

In addition, all doctoral students should have had opportunities to:

1. engage with the broader scientific community in a clinical/professional setting;
2. present their own research at professional meetings;
3. lead and assist with scientific publications;
4. for those seeking academic careers, teach and apply for grants.

We also expect that all of our students consistently uphold the program’s standards related to diversity, equity, and inclusion.

**SELECTION OF MENTOR AND DOCTORAL COMMITTEE MEMBERS**

Within the first 6 weeks of the first semester, students must identify/confirm a Primary Mentor. Typically, a mentor is selected prior to joining the program, but in the case that they were not, or changes have occurred since acceptance, incoming students must identify a member of the KAP faculty to mentor them during their first year. Students should have ample opportunity to interact with this mentor and the lab members during this year to get first-hand experiences with lab culture and expectations. Based on this, they can decide to continue
with this mentor for the remainder of their doctoral years or change mentors. Students must confirm their Primary Mentor at the end of Year 1. After Year 1, a change in mentor/lab is discouraged. All changes in mentoring may extend time to graduation.

With assistance from the Primary Mentor, the student should begin to assemble a KAP Doctoral Committee at the end of their first year. This is a committee of 3 faculty (mentor and 2 additional KAP-affiliated faculty members) that will provide the student with broader research and career support as they progress in the program. The selected faculty should have conceptual or methodological overlap with the student’s research interests / likely dissertation topic area. In most situations, the Doctoral Committee members will serve on the qualifying exam and dissertation committees; however, a fourth member will need to be added to these committees.

By the beginning of Year 2, students are expected to meet with their KAP Doctoral Committee members each semester. Doctoral committee activities as well as progress towards graduation timelines will be discussed at the end-of-semester meetings with the GPD. External (i.e., not KAP affiliated) dissertation committee members do not need to regularly meet with the student.

INDIVIDUAL DEVELOPMENT PLAN (IDP)

Students are required to develop an annual individual development plan (IDP) with their Primary Mentor. Clear discussions about student goals and mentor expectations should begin upon matriculation into the KAP program. IDP topics include: career goals, general research activities, milestones and progress to dissertation, awards & achievements, teaching experiences, transferable knowledge & skills, outreach/service, DEI, ethics, and mentor meetings. This document will set expectations for coursework, roles on lab projects, publications, conference attendance, and grants. It will be updated each year by the student and formally reviewed with the primary mentor and GPD; as necessary, the IDP may be reviewed by the entire KAP faculty.

The IDP should be seen as a living document that changes as student goals and mentor projects/needs change. It is not meant as a report card but rather as a living document that allows students and mentors to document progress, identify and correct training/educational gaps, and shape a well-rounded graduate experience. This plan, when done correctly, will avoid misunderstandings, limit obstacles to success, and help identify mismatches between students and mentors early on.

All students must draft an IDP using SGS’s online platform each year (due June 1st) and then set a meeting with their mentor (by Aug 1st) to review it. After the student and mentor have come to a consensus, the IDP should be shared with the GPD, who will review it. In the event that a student and mentor cannot agree on the IDP, the GPD should be contacted.

All students must demonstrate consistent and satisfactory progress toward their doctorate each year in order to be eligible for reappointment as a Teaching Assistant/Graduate Assistant and to avoid academic warnings. Definitions of satisfactory progress in academics are stipulated by the SGS (see p. 48). Definition of satisfactory progress in research may vary by lab and student, and the IDP is meant to document this. Following the general flow below will ensure such progress is being made. Warnings will be provided if progress is not maintained at a sufficient pace.
IDEALIZED TIMELINE OF STUDY

The following timeline is meant to create a general sense of “flow” through the program that will set the student up for graduation within 5 years, which is the general goal of the program (students coming in with MS degrees, may graduate within 4 years and merge expectations in Years 1 & 2). It must be acknowledged that such a timeline cannot always be followed. Progress in the program depends on extent of skill development needed, project components, lab dynamics and projects, etc. Expectations for timelines and deliverables should be clearly established between the student and Primary Mentor as part of shaping the Individual Development Plan (IDP). See the following pages for more information on the IDP, coursework, committees, and other expectations.

<table>
<thead>
<tr>
<th>Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong> – 9 credits towards degree</td>
<td><strong>Spring</strong> – 9 credits towards degree</td>
</tr>
<tr>
<td>Core (3) + Colloquium (1)</td>
<td>Core (3)</td>
</tr>
<tr>
<td>Electives (3)</td>
<td>Electives (3)</td>
</tr>
<tr>
<td>Research (2)</td>
<td>Research (3)</td>
</tr>
<tr>
<td>TA (6)</td>
<td>TA (6)</td>
</tr>
<tr>
<td><strong>Course work</strong></td>
<td>2 core, colloquium + 2 electives* [13 credits]</td>
</tr>
</tbody>
</table>
| **Research** | - Learn lab skills and assist in ongoing projects  
- Identify skills you/your mentor want to prioritize for training  
- Set weekly one-on-one meeting schedule with mentor  
- Create 3-member KAP Doctoral Committee *(don’t forget paperwork!)*  
- In Spring, complete IDP to set expectations [research/products/timeline] with mentor |
| **Products** | - Look for co-authorships on conference abstracts and lab publications *(ask if opportunities are available)* |
| **Summer** | - Submit IDP for review  
- Discuss formation of Qualifying Exam Committee with mentor |

<table>
<thead>
<tr>
<th>Year 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong> – 9 credits towards degree</td>
<td><strong>Spring</strong> – 9 credits towards degree</td>
</tr>
<tr>
<td>Core (3)</td>
<td>Core (3) + Seminar (1)</td>
</tr>
<tr>
<td>Electives (3)</td>
<td>Electives (3)</td>
</tr>
<tr>
<td>Research (3)</td>
<td>Research (2)</td>
</tr>
<tr>
<td>TA (6)</td>
<td>TA (6)</td>
</tr>
<tr>
<td><strong>Course work</strong></td>
<td>2 core, seminar + 2 electives* [13 credits]</td>
</tr>
</tbody>
</table>
| **Research** | - Review IDP, track accomplishments and revise plan as needed  
- Continue assisting in ongoing lab projects and building lab skills  
- Begin planning dissertation project and timeline *(start the conversation if it isn’t started by your mentor!)* |
| **Products** | - Submit first-authored conference abstract / attend first conference *(local/national as lab funding and opportunities permit)*  
- Co-authorship, plan first first-authorship. If opportunities do not exist within your lab, work with mentor to find other opportunities with collaborators or other KAP faculty.  
- Confirm Qualifying Exam Committee membership *(add 4th KAP member)*  
- Begin qualifying exam preparation after at least 36 of 72 credits complete *(this can include transfer credits). You must have completed core courses, but not electives.* |
<p>| <strong>Summer</strong> | - <em>Complete and defend qualifying exam</em> <em>(don’t forget paperwork!)</em> |</p>
<table>
<thead>
<tr>
<th>Year 3</th>
<th></th>
<th>Year 4 &amp; 5</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall – 9 credits towards degree</strong></td>
<td><strong>Spring – 7 credits towards degree</strong></td>
<td><strong>Fall (Yr 4) – 6 credits towards degree</strong></td>
<td><strong>Spring (Yr 4) – 7 credits towards degree</strong></td>
</tr>
<tr>
<td>Electives (3)</td>
<td>Seminar (1)</td>
<td>Dissertation (6)</td>
<td>Dissertation (6)</td>
</tr>
<tr>
<td>Dissertation (6)</td>
<td>TA (6)</td>
<td>TA (6)</td>
<td>TA (6)</td>
</tr>
<tr>
<td>Course work</td>
<td>1 elective, seminar [4 credit]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Research | - Review IDP, track accomplishments and revise plan as needed  
- Solidify dissertation project  
- Continue assisting in ongoing lab projects |  |  |
| Career-specific activities | Academic research path: develop grant (e.g., NIH, ACSM, NeXT) to submit in Summer  
Industry path: diversify lab skillsets, identify training opportunities  
Teaching path: develop/teach a course in Summer |  |  |
| Products | - Conference abstract (national, travel awards if lab funds are unavailable)  
- 1st first-authorship should be submitted/published  
- Publish! Set a goal (but not expectation) of 1 first-authorship; 3 total by graduation. |  |  |
| Other | - Confirm Dissertation Committee membership (add outside member)  
- Hold 1st dissertation meeting to set parameters and timeline (don’t forget paperwork!) |  |  |
| Summer | Proposal defense  
Begin collecting dissertation data  
Obtain approvals (IRB/IACUC) | Proposal defense  
Begin collecting dissertation data  
Obtain approvals (IRB/IACUC) | Proposal defense  
Begin collecting dissertation data  
Obtain approvals (IRB/IACUC) |
| **Year 4 & 5** |  | **Fall (Yr 5) – 2 credits towards degree** | **Spring (Yr 5) – 3 credits towards degree** |
| Dissertation (6) | Seminar (1) | Dissertation (3) | Seminar (1) |
| TA (6) | Dissertation (6) | TA (6) | Dissertation (3) |
| TA (6) | TA (6) | TA (6) | TA (6) |
| **Course work** | seminar [1 credit] x 2 |  |  |
| Research | - Prioritize dissertation project  
- Complete data collection, begin analysis  
- WRITE!!!  
- Continue assisting in ongoing lab projects as time permits |  |  |
| Products | - Conference abstract (apply for national travel awards)  
- Continue publishing |  |  |
| Other | - Annual dissertation committee meetings (don’t forget paperwork!)  
- Get your CV in order, apply for jobs/postdocs/next steps |  |  |

**COURSE WORK**

Students must meet all prerequisites prior to matriculation or, with approval by the GPD, during the first semester after enrollment. Upon matriculation, students must earn 32 graduate course credits. The exact program of study should be developed in consultation with the Primary Mentor and GPD based on prior
graduate education and future career goals. As much coursework as possible should be completed within the first two years of the program. See page 31 for information about transferring credits.

For required courses, only courses in which the student earned a B or better will count towards their degree. No more than 6 credits of C+/C can be used towards degree requirements. Students are expected to earn an A in at least half the courses attempted in order to continue to advance towards the doctoral degree. Courses may be attempted no more than 3 times. In the event of an Incomplete, students must create a specific plan and timeline for completing the course in collaboration with the GPD; failure to do will result in Incompletes automatically converting to a grade of F after two semesters.

**Required Courses**
(required minimum: 13 credits)
Students must pass (with a minimum grade of B) two advanced human physiology courses, a scientific research fundamentals course, and a statistics course (total: 12 credits). Students are also expected to attend the KAP colloquium series course in Year 1.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Semester</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:505</td>
<td>Research Methods</td>
<td>Fall</td>
<td>Spaeth</td>
</tr>
<tr>
<td>16:572:511</td>
<td>Statistics</td>
<td>Fall</td>
<td>Kokkinos</td>
</tr>
<tr>
<td>16:572:512</td>
<td>Adv Applied Human Physio 1</td>
<td>Fall</td>
<td>Campbell</td>
</tr>
<tr>
<td>16:572:520</td>
<td>Colloquium</td>
<td>Fall</td>
<td>Bates</td>
</tr>
</tbody>
</table>

**List of Recommended Statistics Courses**
The courses listed below meet "Rigor and Reproducibility" training requirements for NIH. Other courses are available through the university. Please contact the GPD for approval to enroll in other courses to fulfill the statistics requirement.

<table>
<thead>
<tr>
<th>Course (Dept)</th>
<th>Course Name</th>
<th>Syllabus</th>
<th>Student Rating</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:115:557 (biochem)</td>
<td>Statistics in Biomedical Science</td>
<td>here</td>
<td>OK</td>
<td>Course instructor changes making course quality inconsistent</td>
</tr>
<tr>
<td>16:125:578* (BME)</td>
<td>Interdisciplinary Biostatistics Research Training for Molecular and Cellular Sciences</td>
<td>here</td>
<td>GOOD</td>
<td>Practical, dataset focused</td>
</tr>
<tr>
<td>16:830:533* (psych)</td>
<td>Experimental Design and Methods</td>
<td>here</td>
<td>GOOD</td>
<td>Deeper data analysis for neuroscience and psychology; conceptual</td>
</tr>
</tbody>
</table>

**List of Recommended Elective Courses**
(elective minimum: 13 credits)
Selection of electives should consider career goals and focus on specific skills and necessary conceptual knowledge domains. The following courses may not be offered every year. Courses that are taught by faculty outside the KAP program may or may not be open to KAP students (or require special permission). Please contact the GPD for more details. **NOTE:** KAP doctoral students may not take co-listed (undergraduate) courses for credit, but these courses may be accepted for transfer from a prior master’s program of study.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Semester</th>
<th>Instructor</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:572:503</td>
<td>Exercise Biochemistry (3 credits)</td>
<td></td>
<td></td>
<td>Stay tuned for updates based on new courses being proposed for the MS program</td>
</tr>
<tr>
<td>16:572:504</td>
<td>Exercise Endocrinology (3 credits)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:572:507</td>
<td>Metabolic Response to Exercise (3 credits)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:572:513</td>
<td>Exercise Epidemiology (3 credits)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:572:521</td>
<td>Seminar in Health Physiology (1 credit)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Notes</th>
<th>Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:115:556</td>
<td>Ethical Scientific Conduct</td>
<td>Recommended for those interested in NIH funding</td>
<td></td>
</tr>
<tr>
<td>16:125:571</td>
<td>Biosignal Processing</td>
<td>MATLAB, lots of signals</td>
<td>OK</td>
</tr>
<tr>
<td>16:125:574</td>
<td>Biomechanics and Biomaterials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:137:502</td>
<td>Principles of Communication and Leadership</td>
<td>Recommended for industry career aspirations</td>
<td></td>
</tr>
<tr>
<td>16:137:501</td>
<td>Fundamentals of Intellectual Property</td>
<td>Recommended for industry career aspirations</td>
<td></td>
</tr>
</tbody>
</table>
Research credit requirements
A minimum of 24 research credits are required for graduation. Students must enroll in 16:572:701 Research in Kinesiology credits each semester. To stay on track for graduation within 5 years, 3 research credits per semester are recommended prior to candidacy and 6 credits per semester are recommended after candidacy. Credit number should parallel time and effort in the laboratory. It is expected that students will have less time to dedicate to laboratory/research activities prior to advancing to candidacy (estimated 10-20 hours / week) due to course work and teaching commitments; after advancing to candidacy, time dedicated to laboratory/research activities should increase significantly (estimated 25-40 hours / week, depending on TA commitment).

Registration
Students must register each semester at https://sims.rutgers.edu/webreg/. It is useful to briefly meet, or communicate via email, with the GPD before each semester to ensure course registration and research credit plans are correct for ensuring on-time graduation. Some courses require a Special Permission Number (SPN) - contact the graduate program coordinator.

DOCTORAL QUALIFYING EXAMINATIONS
To advance to doctoral candidacy, students must successfully pass a written and oral qualifying exam that tests competency in core areas related to the student’s proposed dissertation topic and the learning goals of the KAP program. This exam is called ‘qualifying’ because it denotes that a student is now qualified, i.e., has sufficient critical thinking skills, oral and written capacities, and content knowledge to conduct doctoral-level research/scholarship. Completion of this exam is not contingent on completion of all 32 coursework credits, but all core requirements should have been passed with a B or better before the qualifying exam is begun. In addition, student transcripts must demonstrate satisfactory academic progress based on completion of all courses and standards for GPA (see Academic Performance Policies, p. 42). It is expected that the exam is completed prior to beginning Year 3 in the program (Year 2 for those entering the doctoral program with an MS). Time extensions must be requested in writing.

Qualifying exam committee
The Qualifying Exam Committee must be comprised of 4 members including the 3 members of the KAP Doctoral Committee, formed in the first year of study, plus one additional KAP faculty member. [*stay tuned for possible changes to this requirement in Fall 2024*]. Committee members must be selected in collaboration with the student’s Primary Mentor. All external members must be approved by the GPD. The student is responsible for all communications with committee members, including inviting the faculty member to join, the role/expertise being requested, expectations and timelines, and proposed timeline (see details below).

Qualifying exam timeline
The following is an approximate timeline from beginning the qualifying process to exam completion. The formal written and oral examination dates should be determined in advance. The student, Primary Mentor, and all committee members must be included on emails about the qualifying exam expectations and timeline.
**6 Weeks Prior to Exam → 3 Weeks Prior to Exam:** Student invites each committee member and meets with them individually to determine the general topic area(s) for exam questions and create a reading list. The general topic(s) should be well described and clearly agreed upon. The reading list should include 10-12 papers per committee member, with a mix of recent primary research articles and seminal/theoretical/meta-analytical/review articles. The committee members and students should share responsibility of finding articles. Students may draw from additional research materials, but any additional articles that may be cited should be approved by the appropriate committee member to ensure sufficient quality/standards. Together, the final reading list should create a solid foundation for the student in the topic area and ensure their ability to comprehensively address the specific questions put forth in the formal examination.

**3 Weeks Prior to Exam → Exam Date:** Student independently reads and prepares for the examination. The student should print all articles they may cite in their written exam materials. No electronic materials will be allowed in the exam room. Printed articles may be lightly annotated (i.e., notes in margins), but no drafted text is allowed during the formal examinations.

**1 Week Prior to Exam:** All committee members submit 2 questions that directly pertain to the general topic area agreed upon with the student to the Qualifying Exam Committee Chair, who will review them, check them for clarity, and compile them for the formal exam.

**WRITTEN EXAM DATE** – The written exam is completed over 2 days. Please see below for details on the Written Exam format.

**Exam Date → 2 Weeks Post-Exam:** The committee chair sends student responses to the appropriate committee member, who reads and critiques them. After review, the committee members should inform the chair whether they view the written responses as sufficient (pass) or insufficient (fail). See below for rubrics. The chair will compile evaluations and make, with committee consensus, a determination about next steps. Such discussions may be conducted electronically and the student will not be informed of decisions until a committee consensus is formed. Only students who receive a ‘pass’ or ‘pass with stipulations’ (defined below) on the written component of the qualifying exam may proceed to the oral component.

**ORAL EXAM DATE** – The oral component of the qualifying exam should be scheduled for approximately 2 weeks after the written exam date. All written exam materials must have been reviewed. All committee members must be present. Please see below for details on the Oral Exam format.

**Written qualifying exam format**

The formal written exam period is structured. The exam is in-person and will be completed on a computer that is not connected to the internet. Printed articles from reading lists with light annotations are permitted in the room to check facts and allow appropriate referencing. Additional print materials may be allowable; check with the Primary Mentor and GPD to determine.

The student should see all 8 questions on first morning of Day 1 and chooses 6 before beginning. The 6 questions must include 1 question from each committee member plus 2 additional questions that the student feels best equipped to answer. At least 3 questions should be completed on Day 1. Remaining questions are to be completed on Day 2. Answers are submitted to the Chair. Students cannot go back to revise answers once submitted. The maximum hours allowed for writing between both days is 12 and can be split up as the student wants. Lunch and short breaks throughout the day are allowed and do not count against the 12-hour time cap. There is no expectation that the exam should take 12 hours; shorter completion times are acceptable.

Response length will vary based on the question, but 1500-2000 words and no more than 4 single spaced pages are good reference points. Response length should be dictated by necessity with the goal of demonstrating sufficient depth of understanding. Longer answers are not necessarily better.
**Written qualifying exam grading evaluation**

The exam is evaluated as pass or fail. Passing is based on the evaluation of the content and the writing. The content is determined by the questions asked, the reading lists provided, and the expectations of each committee member. Students, both domestic and international, are required to demonstrate proficiency in written and spoken English. Formal assessment of these skills occurs as part of the qualifying exam process. Language proficiencies are evaluated separately from content assessments.

In general, the content areas to be evaluated are:

- The directness and correctness of the answer.
- The breadth and completeness of the answer.
- The depth of the answer and knowledge of topic area.

In general, the written English components to be evaluated are:

- Vocabulary, grammar, punctuation, and spelling
- Sentence and paragraph structure – tone, length, style
- Logical organization of content and readability

To guide the committee member’s evaluations and set standards for students, the following rubrics are offered. Students must achieve an overall evaluation of “Meets Standards (3)” in both content and written English on all written responses to pass the written exam and move onto the oral exam.

### Content Rubric

<table>
<thead>
<tr>
<th></th>
<th>Outstanding (5)</th>
<th>Exceeds Standards (4)</th>
<th>Meets Standards (3)</th>
<th>Below Standards (2)</th>
<th>Poor (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correct and direct</strong></td>
<td>The response was direct and correct. Content was specific to the exam prompt.</td>
<td>Most of the response was correct. Content mostly directly related to the specific exam prompt.</td>
<td>Sufficient parts of the response were correct. Some content was specific to the exam prompt, but some incorrect, off-point or generic content was present.</td>
<td>Most of the response was incorrect and/or generic. Content was often indirect or unrelated to the specific exam prompt.</td>
<td>The response was incorrect and/or generic. Content was limited to the general topic area.</td>
</tr>
<tr>
<td><strong>Breadth</strong></td>
<td>Answer was comprehensive. Student showed clear understanding of overall area. Many different specific points presented and embedded in general topic area.</td>
<td>Answer was mostly complete. Student showed solid understanding of overall area. A variety of specific points presented and embedded in general topic area.</td>
<td>Answer was sufficiently broad to demonstrate understanding of overall area. Specific points were mainly embedded in general topic area.</td>
<td>Answer breadth was limited and did not demonstrate sufficient understanding of overall area. Specific points were few or disjointed from general topic area.</td>
<td>Answer breadth was insufficient. Few specific points were made. Student failed to demonstrate clear understanding of overall area.</td>
</tr>
<tr>
<td><strong>Depth</strong></td>
<td>Response was highly detailed. Each point was elaborated across multiple sentences. Strong integration of primary research literature and general topic area.</td>
<td>Response was detailed. Points had sufficient elaboration. Primary research literature was integrated into discussion of general topic area.</td>
<td>Response had sufficient details with some elaboration. Primary research literature was reasonably integrated into discussion of general topic area.</td>
<td>Response was mostly superficial. Most points were not elaborated. Primary research literature was not well connected to general topic area.</td>
<td>Response was superficial. Specific points were lacking and there was no elaboration. Primary research literature was not connected to general topic area.</td>
</tr>
</tbody>
</table>

### Written English Rubric

<table>
<thead>
<tr>
<th></th>
<th>Meets Standards (3)</th>
<th>Below Standards (2)</th>
<th>Poor (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Errors</strong></td>
<td>Limited errors in vocabulary, spelling, grammar, and punctuation. Errors have limited effect on readability.</td>
<td>Numerous errors in vocabulary, spelling, grammar, punctuation that affected readability in some places</td>
<td>Excessive errors in vocabulary, spelling, grammar, punctuation that made the whole answer difficult to understand</td>
</tr>
<tr>
<td><strong>Tone</strong></td>
<td>No unprofessional language or tone</td>
<td>A few examples of unprofessional language or tone</td>
<td>Significant use of unprofessional language or tone</td>
</tr>
<tr>
<td>Length</td>
<td>Information was presented clearly. Some rambling, repetitiveness, digressions, but generally concise and to the point.</td>
<td>Multiple areas were too wordy (rambling, repetitive, digressions, over-emphasis on minor points) or too brief to adequately cover the point.</td>
<td>Sentence and paragraph structure made it difficult to understand the information presented.</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Organization</td>
<td>Well-organized. Communicates ideas clearly.</td>
<td>Poorly organized. Order of ideas difficult to follow.</td>
<td>Disorganized. Ideas are very difficult to follow.</td>
</tr>
<tr>
<td>Readability</td>
<td>The writing was easy to read. The flow of ideas was logical within and between paragraphs. Minor logic gaps evident.</td>
<td>Effort was required to understand the writing. Several gaps in logic.</td>
<td>Very difficult to follow and extremely difficult to understand. Substantial gaps in logic were evident.</td>
</tr>
</tbody>
</table>

Each committee member provides an evaluation of answer(s) to the questions that they provided. The committee chair may choose to ask for further clarification or add input, but it is the final decision of each committee member to designate a pass or fail determination. The chair compiles all committee evaluations, shares evaluations, and obtains a consensus with all committee members about Pass/Fail determination.

- **Passing** should be considered the outcome when all evaluations are at least "Meets Standards (3)".

- **Passing with Stipulations** should be considered the outcome when the student receives a Below Standards (2) on any evaluation criteria. Students will be asked to submit revisions to the written document. Such revisions must be completed and approved by the committee before the student can advance to candidacy; however, the student can move forward with the oral component of the exam prior to submitting revisions. In such cases, the oral exam meeting should include details of what is being requested and why. A timeline for resubmission should be discussed; students should have no more than 1 month after the oral exam to revise the written document.

- **Failing** should be considered the outcome when any evaluation (content or writing for any question) is “Poor (1)”. Should a student fail to pass any question, they will be permitted to retake the exam (or failed elements of the exam, at the discretion of the committee) one time only by the end of the semester following the original exam date. The committee or GPD can request completing additional tasks or taking additional classroom courses. A second failure will result in dismissal from the doctoral program. In the case of failing the qualifying exams, students may be eligible for a terminal M.S. if:
  - they have not already earned a parallel Master’s degree from another institution;
  - they have successfully met all requirements for the M.S. thesis track, including
    - overall GPA of at least 3.0;
    - passed all required courses;
    - sufficient research credits;
    - sufficient overall credits;
    - completed and successfully defended a thesis.

Final decisions to allow a student to terminate with a Master’s degree is contingent upon approval of the GPD and the SGS. A Change of Degree Status form must be completed and submitted for approval to SGS.

**Oral qualifying exam format**
The formal oral exam period is a minimum of 1 hour. The exam can be completed in-person or virtually. All members of the committee must be present for the entirety of the exam period. For the oral exam, students are not allowed to reference written or computerized materials except the written exam document that was submitted. No PowerPoint or formal presentation materials should be used.

The oral exam should start out with the committee chair creating a structure for the order of questioning. One at a time, committee members are called upon by the chair to begin the specific critique and evaluation of a given exam response. The member should pose specific questions to the student to clarify, expand, or correct shortcomings of the written response. If no shortcomings were noted, a general discussion to hear the student verbally express and elaborate their response should occur. Errors in content should be corrected by the committee member. Other committee members are permitted to enter the discussion but only in a secondary
role. Neither the chair nor other committee members should answer on behalf of the student. If the student answered two questions from one committee member, each question should be discussed separately. The meeting ends after all members have had the opportunity to address the student and all questions have been verbally discussed. The student should then exit the room or virtual meeting space and the committee should discuss their impressions and evaluations. When consensus is reached, the student can be invited back into the room for final determination of pass or fail.

**Oral qualifying exam grading evaluation**
The exam is evaluated as pass or fail. Passing is based on the evaluation of the response content (correctness and comprehensiveness) and the oral communication skills of the student. The quality of the response is determined by the questions asked and the expectations of the committee member asking the question. To guide the committee member's evaluations and set standards for students, the following rubrics are offered. Students must achieve an overall evaluation of "Meets Standards (3)" in both content and spoken English in all responses to pass the oral exam.

**Content Rubric**

<table>
<thead>
<tr>
<th></th>
<th>Outstanding (5)</th>
<th>Exceeds Standards (4)</th>
<th>Meets Standards (3)</th>
<th>Below Standards (2)</th>
<th>Poor (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct</td>
<td>The response was direct and correct.</td>
<td>Most of the response was correct.</td>
<td>Sufficient parts of the response were correct.</td>
<td>Most of the response was incorrect and/or generic.</td>
<td>The response was incorrect and/or generic.</td>
</tr>
<tr>
<td>Comprehensiveness</td>
<td>Answer was comprehensive. Student showed clear understanding of overall area.</td>
<td>Answer was mostly complete. Student showed solid understanding of overall area.</td>
<td>Answer was sufficiently broad to demonstrate understanding of overall area.</td>
<td>Answer breadth was limited and did not demonstrate sufficient understanding of overall area.</td>
<td>Answer breadth was insufficient. Student failed to demonstrate clear understanding of overall area.</td>
</tr>
</tbody>
</table>

**Spoken English Rubric**

<table>
<thead>
<tr>
<th></th>
<th>Meets Standards (3)</th>
<th>Below Standards (2)</th>
<th>Poor (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Errors</td>
<td>Few errors in vocabulary and grammar but without affecting clarity</td>
<td>Several errors in vocabulary and grammar making the answer difficult to understand</td>
<td>Many errors in vocabulary and grammar making answer incomprehensible</td>
</tr>
<tr>
<td>Length and clarity of thinking</td>
<td>Information was clear and concise. Minimal rambling or repetitiveness. Communicated ideas clearly.</td>
<td>Too wordy (rambling, repetitive, digressions, over-emphasis on minor points) or too brief to adequately cover the point. Ideas were difficult to follow.</td>
<td>Sentence and paragraph structure made it difficult to understand the information presented. Ideas were very difficult to follow.</td>
</tr>
<tr>
<td>General Stylistic</td>
<td>Good oral communication style. Delivery of ideas demonstrated confidence, polish, enthusiasm, and command of topic. Good use of scientific language, and terms central to the content area. No unprofessional language or tone.</td>
<td>Unsatisfactory oral communication style. Delivery of ideas was disorganized. Lacking confidence, enthusiasm, or command of topic. Limited use of scientific language and terms central to the content area. A few examples of unprofessional language or tone.</td>
<td>Unacceptable oral communication style. Delivery of ideas was incomprehensible. No confidence, enthusiasm, or command of topic demonstrated. No scientific language and topic-specific terminology. Significant use of unprofessional language or tone.</td>
</tr>
</tbody>
</table>

At the end of the examination period, after the student has exited the meeting space, the committee members voice their overall evaluation of the responses to the questions / discussion topics that they (and the other committee members) posed. Each committee member designates a pass or fail determination and, through a chair-led discussion, come to a consensus about Pass/Fail determination.

- **Passing** should be considered the outcome when **all** evaluations are at least “Meets Standards (3)”.
- **Failing** should be considered the outcome when **any** evaluation for any question is “Below Standards (2)” or “Poor (1)”. Should a student fail to pass any question, they will be permitted to retake this component of the exam one time only by the end of the semester following the original exam date. The committee or GPD can request completing additional tasks or taking additional classroom courses. A second failure will
result in dismissal from the doctoral program. In the case of failing the qualifying exams, students may be eligible for a terminal M.S. if
- they have not already earned a parallel Master's degree from another institution;
- they have successfully met all requirements for the M.S. thesis track, including
  - overall GPA of at least 3.0;
  - passed all required courses;
  - sufficient research credits;
  - sufficient overall credits;
  - completed and successfully defended a thesis.

Final decisions to allow a student to terminate with a Master’s degree is contingent upon approval of the GPD and the SGS. A Change of Degree Status form must be completed and submitted for approval to SGS.

The student must convey the outcome of the written and oral exams to the GPD within 1 month of exam date using a completed and signed Qualifying Exam Completion Form. The Second Attempt forms must be completed in the case that the student does not pass either component of the exam on the first attempt.

**Final Step**
The student is responsible for submitting the Application for Admission to Candidacy for the Degree of Doctor of Philosophy to the SGS via email. This form should be filled out by the student and sent to all committee members upon completion of the exam. All members must sign the form; signatures must be verifiable (use Docusign or Adobe Professional). This form must be submitted to the aforementioned email address at least two months before the final oral defense of the dissertation.

**ADVANCEMENT TO DOCTORAL CANDIDACY**

Upon successfully passing the written and oral qualifying exams and submission of the candidacy application to the SGS, the student is considered a Doctoral Candidate. At this point, the student’s own doctoral research should begin in earnest (if it hasn’t already). This means that while they should continue to support ongoing mentor/lab projects, their priority should shift to their own independent research project.

A dissertation is meant to be a final, independent project that is conceptualized, designed, and executed mainly by the student. The doctoral project should demonstrate substantial depth of understanding of the ideas that shape the project, the methods (including statistical methods) utilized, and the interpretations of the results. This does not mean that the student cannot work on an ongoing project, be guided by their mentor, or assisted by peers and lab personnel. In fact, the Primary Mentor and fellow lab members should provide support and assistance with all aspects of the project as needed, and an ongoing exchange of ideas is the sign of a healthy mentor-mentee relationship (and lab culture). However, a doctoral student should not be ‘given’ a fully planned project or asked to complete part of an already conceived and active project over which they have no say. It is important that a doctoral student views themselves as the ‘principal investigator’ of their doctoral research – being allowed to shape the narrative and influence study design. They should be able to both give and take feedback by the time they graduate, feeling confident in their ability to decide a best course of action as well as understanding when someone else’s expertise should be heeded. This level of growth towards independence in all aspects of research is a general expectation of individuals holding a doctoral degree and is critical to success in both industry and academia.

**Dissertation Committee**

Upon advancement to candidacy, the members of the Qualifying Exam Committee should be asked to remain on dissertation committee or replaced based on the decision of the Primary Mentor and student. In the event of replacement, the committee member should be informed in writing; no reason is required but they should know that their responsibilities to the student’s progress have ceased. In addition, one committee member must be external / not affiliated with the KAP program or the Department of Kinesiology and Health; this individual must hold a doctoral degree. Students are encouraged to draw on the professional networks and knowledge of their mentors for selection of this outside member. Dissertation committee membership must be
approved by the GPD. Submit the list of members by email once the committee has been formed and no later than 1 week after the formal dissertation proposal meeting.

**Dissertation Proposal**
The dissertation proposal is a formal process whereby the Dissertation Committee is presented with a written document clearly delineating the project that the student plans to undertake for their dissertation work. The process should also include an oral presentation to the committee and considerable group discussion with the goal being to ensure that the proposed project is of sufficient depth and breadth, and feasible within the doctoral timeline.

Sometimes the proposal process is completed before any work begins on the dissertation; this is the ideal scenario as it ensures that the ideas, approvals (e.g., IRB), and timeline are well established from the onset. Other times, the proposal process is completed later (i.e., after publication of a relevant, independent study or grant award). If the proposal is postponed, it is strongly recommended that dissertation committee meetings nonetheless start early — during the brainstorming and shaping phase — even if the formal proposal presentation and written document are contingent on pilot data collection, grant submission, publication preparation, etc. Remember that there may be situations where a student spends significant time on a pilot study, grant application, or manuscript that does not pan out. An active and informed committee can help students navigate such situations.

The proposal document has no specific structure or format but should cover the goals of the project, the premise of the study (i.e., foundational research that supports the ideas), methodologies, and hypotheses. Typically, the format of the proposal creates the structure for the final dissertation; at a minimum, the written proposal should include a literature review, a list of the aims and hypotheses, and methods including the statistical plan. It is expected that the proposal demonstrates depth of knowledge. It is common for the proposal to include a fully drafted Chapter 1 (see Suggested Dissertation Format below) plus a comprehensive outline of the methods and statistical plans for Chapters 2–4; this proves the best “head-start” for writing the final dissertation document. It is the student’s responsibility to schedule the formal proposal meeting.

The written document should be submitted to the Dissertation Committee members after review by and approval of the Primary Mentor and at least 10 business days prior to the scheduled proposal meeting. The student may be required to revise the proposal after the committee meeting, and it should be clarified at the meeting as to whether the committee wishes to reconvene prior to approval. Within 1 week of the dissertation proposal approval, the student must submit to the GPD the list of members of the dissertation committee and the outcome of the committee meeting using the Dissertation Proposal Approval form (see p. 50). It is strongly encouraged that the proposal is defended and approved before the start of Year 4.

**Final Written Dissertation**
The final dissertation defense consists of the written dissertation and oral defense. There is no ‘correct’ length for a dissertation and there are several general structures that are considered acceptable for the KAP doctoral program. Students should work closely with their Primary Mentor to determine the general outline.

Nearly always, the first chapter is a general overview / literature review / explanation of problem. The middle chapters usually represent one of the following:
- 3 or more related manuscripts
- 3 or more related but independent research studies
- 3 or more related but statistically independent aims, or
- some combination of these options

The final chapter generally is the weaving of the studies/aims together, with a general discussion of findings (not repetitive but rather an extension of what is discussed in the middle chapters).

**Opening Chapter:** This chapter should include a review of the foundational research that led the student to develop the dissertation. It should be broad and cover ALL research domains that will be covered in the subsequent chapters; subsections are acceptable and usually improve readability. The health significance
and/or importance of the dissertation research should be mentioned and can
often be a good lead-in for the aims and hypotheses, which must be included
at the end of this chapter. Bibliography should be included only at the end of
the dissertation, as per the Thesis and Dissertation Style Guide.

Middle Chapters: There should be a minimum of 3 middle chapters, which
each typically include a more specific introduction that is tailored to that
specific aim/study, a complete method section with data and statistical plans,
results with tables and graphs embedded per the Thesis and Dissertation
Style Guide, and an aim/study-specific discussion section.

- If a student wishes to reproduce a published or submitted manuscript
  (primary research or review) as a chapter in their dissertation, they must
  (a) be the first author of the study and (b) be the primary writer of the
  study and closely involved in the editing and revision process, and (c)
  have performed the statistical analyses or understand the statistical
  strategies sufficiently to describe them in detail at their oral defense. For
  primary data collection, the student must demonstrate comprehensive
  understanding of the study design and data collection procedures and
  been a participant in either or both. For secondary data analyses, the
  student must have been involved in the analytic design and statistical
  analyses. It is not acceptable to use a lab-publication that does not meet
  these requirements in a dissertation.

- If a student designs a single study with multiple aims, as is common
  with grant-funded dissertation projects, the dissertation aims should be
  clearly differentiated by using a different subset of variables,
  participants/subjects, and/or statistical strategies; two similar analyses of
  the same data (i.e., that lead to the same conclusion) cannot be split
  between two chapters. Each chapter must address an independent
  aim/goal. Even in the event that there is considerable redundancy in the
  methods across the aims, all middle chapters must have a method
  section. The first middle chapter may present the complete method and
  subsequent chapters may be much briefer. For example, if the aims differ
  in analytic strategy, the procedures may be very brief in subsequent
  chapters but the analytic plan should contain all new details. Subsequent chapter should not simply say
  ‘see Chapter 2’.

- If a student wishes to combine a series of independent research studies into a dissertation, there should
  be an overarching vision / goal / hypothesis. The studies can be very different as long as they are all
  triangulated around a single concept or research question. Three unrelated ideas cannot serve as the
  foundation of a dissertation project.

If in doubt, please contact the GPD.

Formatting: Don’t take this piece lightly! There is absolutely a correct style! Dissertations must conform to the
Thesis and Dissertation Style Guide and will not be accepted if it does not adhere to the stylistic and technical
requirements specified. Don’t worry, though, SGS doesn’t micromanage, but make sure not to skip this step.

Dissertation Defense
The dissertation defense should be scheduled at a time when all Dissertation Committee members are
available to attend. Typically, a defense takes 2 hours; please schedule accordingly. An in-person defense is
strongly preferred; if other options are needed, please coordinate with the GPD and committee in advance.
Virtual attendance by committee members is allowed but discouraged; recorded defenses that are later viewed
by committee members are disallowed. Students should work with committee members to identify a time and
date well in advance (see timeline below); the KAP program administrator can then help the student find an
available room.
Defense date, time, and location along with the candidate’s name and dissertation title should be advertised 3-4 weeks prior to the defense via Rutgers outlets and can be broadly disseminated to family, friends, and the public as desired. The KAP program administrator can assist with making marketing materials. Zoom links may be offered to make the defense accessible to family and friends; KAP students and faculty are strongly encouraged to attend the defense in person whenever feasible. Making time for and supporting your fellow students in person is essential to foster the program culture.

Students should prepare a ~45-minute presentation (with PowerPoint or equivalent) of the dissertation findings. They should leave ~15 minutes for questions from the general audience. At the end of the first hour, the general audience is excused, and the candidate and committee members remain for the approximately 1-hour defense. At the formal defense, committee members ask probing questions about the conceptualization, methods, results, and conclusions of the dissertation project; the student is expected to demonstrate comprehensive knowledge of the project details and "defend" decisions made related to the project design and interpretation of findings.

At the end of the defense period, after the student has exited the meeting space, the committee members voice their overall evaluation of written dissertation as well as the defense. Through a chair-led discussion, the committee then comes to a consensus about whether the student should advance to graduation. A major focus of this discussion is on the quality of the written document and the students overall command of their project and field of study. There are four possible outcomes:

- **Approval** of dissertation document, as written. Graduation is recommended.
- **Conditional approval**. Minor edits to the written dissertation are requested by the committee. The candidate makes necessary edits and submits to the mentor for approval. No further committee participation is required. Graduation is recommended.
- **Revision needed**. Edits to the written dissertation by the committee are substantial enough to warrant additional committee review after suggested changes are made. It should be clarified at this time whether additional individual or group meetings are required, or whether email review is sufficient. Graduation is tentatively recommended and reasonable efforts by all committee members will be made to help the student meet dissertation deposit deadlines.
- **Major revisions needed**. The committee determines that substantial changes are needed to the document or that the student’s comprehension of the project is insufficient. Ongoing committee participation is required; the nature of this participation should be clearly defined. Graduation is not recommended at this time. The GPD should be informed immediately, especially in the event that matriculation for an additional semester is required.

**Program Completion Timeline**
As the student begins writing their final written dissertation, the following timeline is suggested to ensure that students meet deadlines for graduation (assuming approval by the Dissertation Committee).

**At the beginning of the semester that you expect to graduate**, student MUST:
- inform the GPD to ensure that all academic requirements are complete
- ensure that there are no outstanding fees or holds on your university account

**8 weeks prior to SGS dissertation deposit deadline**:
- Schedule dissertation defense date, time, and location
- Provide information to KAP program administrator, who will create marketing materials for the defense
- Invite family and friends as well as members of your scientific community to attend.

**5 weeks prior to SGS dissertation deposit deadline**:
- Provide Dissertation Committee with final draft of dissertation document

**3 weeks prior to SGS dissertation deposit deadline**:
- Defend dissertation
1-2 weeks prior to SGS dissertation deposit deadline:
- Finalize written dissertation with mentor, incorporate committee feedback, and double check formatting
- Complete all forms (see below)

Dissertation Deposit Deadlines
All forms listed below must be submitted by ~October 1 to graduate with an October degree.
All forms listed below must be submitted by ~January 1 to graduate with a January degree.
All forms listed below must be submitted by ~April 1 to graduate with a May degree.

Required Forms
The student is responsible for completing the following 7 forms for graduation. They must be sent in one email as a single PDF to sgs.degree.submissions@grad.rutgers.edu before the deadline listed above. In addition, the final dissertation must be submitted and approved in by our office in order to graduate. See the SGS graduation checklist for more details.

1) Diploma Application – submit PDF of email confirmation
2) Candidacy Form – this form should be completed by the student, uploaded to Docusign, (see instructions below) and signed by the dissertation committee members and GPD.
3) One original title page signed by your committee in PDF format
4) Survey of Earned Doctorates. Return the Certificate of Completion (at the end of the survey) as a PDF.
5) Ph.D. Exit Survey. Save and return the "Verification Sheet" as a PDF.
6) Degree Candidate Responsibility Statement
7) Publishing Agreement - Once complete, click on "Manage this ETD”> "View ETD Details” > "Print your Details Page". Submit "ETD DETAILS" page as a PDF. More information can be found at: Electronic Thesis and Dissertation (ETD) Submission

Additional forms that need to be completed:
Dissertation/Thesis Acknowledgement of Previous Publications
Dissertation Deferred Publication Policy
Copyright Information
Copyright Issues for Dissertations: Guidelines on Use of Prior Works

GRADUATION

Although there should be ample opportunity to discuss the overall graduate experience throughout the student years, an “exit interview” would also be greatly appreciated. This interview can be with the GPD, other departmental administrators (e.g., DKH chair or vice chair of research), or another appointed individual. The goal of these meetings is to ensure that the program continues to meet the needs of its students.

Commencement and Convocation
SGS holds their annual commencement (general ceremony) and convocation (where graduates are individually recognized) ceremonies in the spring. All students who graduate within the year may attend that spring’s commencement and convocation. For students whose degrees are dated for October or January, diplomas will be available by November and February, respectively. Decision to attend commencement and convocation should be indicated on the diploma application. Students may request a temporary certificate of completion by submitting a written request to the university registrar (Administrative Services Building, Busch Campus). This request form may be obtained at the Dean's Office.

Students must purchase doctoral regalia for the convocation. The department has some regalia that can be borrowed for the event and some (e.g., the cap) are available for less on Amazon. If you would like to inquire about available regalia, speak with Janice Nappe. In addition, if you purchase regalia and do not plan to need it in the future, consider donating it for future student use.
PROGRAM CULTURE

Graduate school can be stressful and difficult; students should be able to draw support from each other as well as from the KAP faculty. Your fellow graduate students do not need to become your “best friends”, but they can provide useful insights and information while you are in the program, help ground your lab and course experiences, and may end up being lifelong professional peers. A large professional network is always an asset and there is no better time to start developing it than in grad school.

Our program and department seek to create camaraderie among the students, and between the students and faculty, beyond the classroom and lab by hosting events throughout the year. We encourage students to engage in KAP extracurricular activities whenever possible; active participation in the KAP Graduate Student Organization is also encouraged. These activities benefit the students and shape the culture of the program.

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Career Paths
Not all students who enter the KAP program have the same long-term goals. Kinesiology is a field that offers many opportunities for individuals with advanced degrees. A M.S. degree offers more options and higher pay in fields like fitness, athletics, and physical education. A Ph.D. opens doors in fitness and health industries, including wearables and app development, as well as teaching-focused and research-focused academic careers. Examples of possible career paths include:

- Data scientist (industry)
- Sports scientist (athletics)
- Research scientist (biotech, pharma)
- Tenure Track professor at “R1” research university
- Tenure Track professor at “R2” or “R3” research university or non-tenure track teaching professor
- Clinical research coordinator (medical school)

It is important for students to consider their most likely career path to guide their selection of electives and experiences while enrolled in graduate school. The program will support student interests related to teaching and industry careers as well as research careers.

Interpersonal Conflicts
The KAP program expects students to treat each other with respect and understanding at all times – including at off-campus social settings. KAP takes the university’s and school’s code of ethics and professionalism seriously. Consider other possible interpretations before sending a text, email, or post; attempts to be funny or smart may come across as hurtful or condescending and can lead to misunderstandings and disputes. This can seriously and negatively affect the culture of a lab and the program.

Unfortunately, it is inevitable that interpersonal conflicts will occasionally arise – between students or between a student and a faculty member or a mentor. It is worthwhile considering that most individuals seeking a doctoral degree are on career paths that will involve personnel management (this is certainly a component of academic science!). Personnel management is very challenging even for seasoned professionals but any opportunity that a student gets to learn how to navigate difficult interpersonal situations in a civil and
constructive manner is valuable. We encourage students to attempt to resolve minor difficulties on their own – sometimes an email, where words can be carefully thought out and crafted, is preferable to an impromptu conversation; such an approach also allows the other person to be equally measured in their response. It can also create a paper trail to clarify the situation if things escalate. In the event of more than minor problems, the first recourse is with the lab director/Primary Mentor (unless the issue is with the mentor); the student should then seek guidance from the GPD, Vice Chair of Research, Departmental Chair, or Divisional Dean (in that order).

SELECTING A MENTOR

The student, mentor, and GPD, as well as the entire KAP faculty share the responsibility of creating a positive academic and research experience. Without a cooperative effort, a student’s academic and professional development may be hindered, and the integrity of the program is jeopardized. Historically, in both the U.S. and European university systems, a close and sustained relationship between an experienced faculty mentor and an advanced graduate student has been a central, respected component of graduate education, and is a tested and effective method for preparing the next generation of scholars and researchers. At its core, science uses an apprenticeship model. Students benefit from the knowledge, experience, and counsel of established scholars and researchers who facilitate the apprentice scholar’s socialization to a particular discipline. Mentors act, variously, as advisers, guides, role models, supervisors, and collaborators, with the goal of enabling graduate students to make the transition from student to independent investigator.

Selection of a mentor should be taken very seriously!

It is very important that students (and mentors!) carefully consider what type of mentor-mentee relationship they are looking for. Some faculty are “hands on”, whereas others are not. Some faculty assign students to specific projects, whereas others allow students to choose. Some faculty have strict time-in-lab requirements, whereas others allow remote work. Each style has strengths and weaknesses, but a mismatch in expectations and temperament/interpersonal style can make the graduate years unhappy and unproductive.

Many students identify a mentor at the time they applied, but in the event that a mentor was not identified or circumstances have changed, confirmation of a mentor within the first 6 weeks of the first semester is required to progress in the program. All students in KAP must be receiving formal mentoring from a full member of the KAP faculty at all times while enrolled in the program. For master’s students, a single mentor serves for the entirety of time in the program. Only in rare and extenuating circumstances may a master’s student change mentors. For doctoral students, the mentor identified at or near matriculation will be designated as Primary Mentor. At the end of Year 1, the student can extend this relationship and or choose to change laboratories/primary mentors if they can find another mentor who fits better with their interest, abilities, or interpersonal style. Such a change must be discussed with and approved by the first year Primary Mentor, the proposed Primary Mentor, and the GPD. These can be hard conversations for students to initiate but students should know that these things happen and there will be no repercussions from such a request, even if the student has the first-year mentor as a professor for a course taken subsequently. The GPD can serve as a liaison as needed. After the end of the first year, doctoral students should only change mentors in exceptional circumstances. Such changes will likely alter the timeline to graduation and may affect funding (teaching and graduate assistantships). Such circumstances should include consultation from the GPD as well as the Chair or Vice Chair of Research in the Department of Kinesiology and Health.

STUDENT STATUS

You must enroll in 9 credits per semester to maintain full time student status, except for doctoral students after advancement to doctoral candidacy, at which point 1 credit is sufficient to be considered a full-time student. TA and GA credits can be used towards student status, although these credits are not applied towards the required degree credits. No more than 15 credits (including the TA/GA credits) can be taken per semester and only in extenuating circumstances will the SGS approve an increase to 16 credits; beyond this, additional credits are not possible because it represents more than full-time employment.
TRANSFERRING CREDITS

Credits obtained from master’s programs offered at peer institutions may be transferrable and used towards elective credit requirements. To get transfer credits approved, a student’s official transcript plus the course syllabus is required. Materials must be in English. The course syllabus must include a breakdown of all class topics. Transfer credits are only available if the student obtained a B or better in the course. **Transfer credits cannot be requested or evaluated until a minimum of 9 credits of graduate level course work with grades of B or better in the SGS has been completed.** Transfer credits can only be requested by matriculated students in good standing.

1. Transfer of credit is allowed only for formal graduate level course work specifically related to the student’s program of study in which grades of B or better were received.
2. No credit may be transferred for thesis research work, course work done as independent study, or work in courses which were not graded.
3. Only in rare circumstances will transfer credits be applied towards core requirements; in such cases, the transfer course must completely overlap with the KAP course in terms of class topics and time spent per topic to demonstrate that both the breadth and the depth of materials are parallel.
4. Credit is not normally transferred for courses taken more than six years prior to the application for transfer of credit. Appeals for waiver of this time limit may be made by the GPD, in writing, with a statement verifying that the course material still represents the current state of science and that the student’s knowledge of the subject remains intact as the result of directly working in the field of study.
5. For Ph.D. students, no more than the equivalent of one year of course work may be transferred; typically this is 18 credits.
6. For M.S. students, no more than 40% of the course credits required for the Master’s degree may be transferred (i.e., 10-12 credits).
7. Credits that counted towards an undergraduate degree cannot be transferred.
8. Quarter credits will be converted to semester credits by reducing the total by 1/3 (i.e., 9 quarter credits = 6 semester credits).
9. Complete the transfer of application form (also available on the SGS website)

RESEARCH POLICIES

All research conducted by KAP students and faculty must be held to highest possible standards and adhere to all University and Federal regulations and guidelines. The Rutgers Office for Research oversees all research activities and should be contacted if the student has any concerns about mandatory training and approvals. This office also provides information and maintains reporting sites for conflicts of interest and research misconduct.

**Human subjects research**

All individuals involved performing students using human participants must complete the Collaborative Institutional Training Initiative (CITI) program *prior to beginning any research activities*. The Basic Course (usually Biomedical/Clinical) must be completed. In addition, individuals conducting or involved in NIH-funded clinical studies must complete at least one Good Clinical Practice Course.

All research activities involving human participants also requires approval by the Institutional Review Board for the protection of human subjects in research (IRB). Protocol forms, templates and, policies and procedures are available for review here. The electronic submission portal (eIRB) must be used to submit all materials and research cannot begin until formal approval by the IRB is given.

**Animal research**

All research activities involving animal subjects requires approval by the Rutgers Institutional Animal Care and Use Committee (IACUC).
Additional requirements
The student and mentor must ensure that all approvals have been obtained prior to commencing research. Studies can be shut down if such approvals are not obtained. For example, if biospecimens, such as saliva, urine, blood, are collected, online coursework, protocol submissions, and/or in-person meetings may be required by the Rutgers Biosafety Program and other Rutgers research bodies. Students should discuss required approvals with their mentor prior to the beginning of any research activities. If in doubt, contact the GPD or the Director of the IRB/IACUC.

Scientific Products
The use of a Rutgers affiliation on publications and/or other science-related materials, presentations, and applications (i.e., grants, awards) that have not been formally approved by the student’s Primary Mentor or the GPD is prohibited. Students should report their affiliation as Rutgers, The State University of New Jersey, Department of Kinesiology and Health, New Brunswick, NJ
INCOME SOURCES
Rutgers School of Arts and Sciences (SAS) policy guarantees 5 years of financial support for admitted Ph.D. students as long as they remain "in good standing" (see below). Students can formally waive support if they have an independent source of support or choose to pay for the credits themselves (tuition rates are determined by the university). Options for financial support are teaching assistantships, graduate assistantships, or graduate fellowships.

TEACHING ASSISTANTSHIP (TA)

This is the most common form of financial assistance offered by the program. A TA is a 10-month, ~15 hour/week position that covers tuition, provides health insurance, and offers a salary of ~$36,000 (2024-2025). Full tuition remission is available for Fall and Spring semesters; summer courses are not covered.

KAP students instruct laboratories associated with undergraduate courses that are required for our Exercise Science major. There are a total of 5 Exercise Physiology and 4 Anatomy TA positions available through KAP.

Exercise Physiology Lab TA positions

“Ex Phys Lab” involves overseeing hands-on student learning experiences. This lab is a requirement of our department's undergraduate Exercise Science major and typically enrolls ~200 students per semester. Each lab section includes 10-12 students; each TA oversees 2 lab sections. In addition to attending all lab periods (2.5 – 3 hours each), TAs can expect 2 – 3 hours of grading per week.

Morgan Murray serves as the Coordinator of the Exercise Physiology Labs. He is responsible for TA training and supervision. The TA schedule is set based on students' KAP course schedules and dissertation research needs. The first 30 minutes of each lab is dedicated to reviewing the results of the previous lab and discussing the important concepts for the current lab. The remainder of the time is spent on the lab procedures/activities. TAs are expected to administer a variety of laboratory tests pertaining to: aerobic capacity, muscular strength and endurance, flexibility, body composition, etc. Examples include: VO2max tests, the Wingate Anaerobic Test, Resting Energy Expenditure, Goniometric Range of Motion, Skinfold Assessments. TAs are expected to generate enthusiasm and interest among their students. New TAs are trained during their first semester and are encouraged to attend summer sessions prior to beginning their TA to get a first-hand sense of the student experience. Training is handled on a case-by-case basis based on prior experience.

Anatomy Lab TA positions

Anatomy Lab involves overseeing hands-on student learning experiences with cadavers. Adam Divine serves as the Course Coordinator of the Anatomy Labs. The lab is highly interactive, and TAs are expected to engage students and encourage other opportunities for involvement and participation to those who are reticent about handling the cadaver directly. Being an effective TA involves weekly preparation of the topic and knowledge of the anatomical regions on both cadavers; this ensures that students have the chance to learn on multiple bodies.

Each lab section includes 15-20 students and, after the first year, TAs oversee 2 lab sections. In addition to attending all lab periods, TAs are expected to attend a weekly meeting with the Coordinator to prepare and review; this standardizes the information provided to students across all sections. TAs create weekly non-credit quizzes that are administered at the start of the lab based on the prior week’s material to prepare students for the mid-term and final practical format. TAs also prepare ~50 exam questions for the mid-term and practical. TAs grade all test materials in a timely manner – often immediately after - to allow exam review as an additional learning tool. Lastly, each TA will supervise 1-2 undergraduate student lab assistants whose role is to help fellow students review the material after the lecture-based portion of the lab is complete.

In the first year, the TA shadows the Course Coordinator during 1 lab section and independently runs a second session each semester. First year students must have all quiz and exam questions approved by the Course Coordinator prior to administering the items to students. During any semester that students are ‘shadowing’, they are also assigned to be a ‘grader’ (see below) for one of the large required undergraduate Exercise Science major courses (e.g., Exercise Physiology, Exercise Testing and Prescription, Psychology or Sport) but
are not paid additionally for this grading role; this is to improve parity across TA assignments. Upon approval by the Course Coordinator, TAs will independently oversee two lab sections.

The Teaching Assistant Project (TAP) offers a comprehensive handbook that can answer many questions. TAP is designed to promote excellence in undergraduate and graduate education at Rutgers—New Brunswick through the professional development of TAs. TAP recognizes the dual role of TAs in the university and seeks to assist them in teaching on the college level while balancing their responsibilities as graduate students. They offer a new TA orientation, workshops and seminars, certificate programs, discipline-specific trainings, videotaping/reviewing, and both written and web-based materials. A dedicated telephone line, the TA helpline (848-932-11TA), also provides assistance to TAs who have questions about teaching.

Appointment Process
Initial TA appointments are competitive. Incoming students are notified upon acceptance into the program about their TA appointment or other expected form of support. Based on past enrollment and graduation rates, 1 – 2 TA lines are expected to become available for new doctoral students each year. Rutgers requires initial appointment letters to be sent by April 30th; more detailed departmental appointment letters are sent in May or June. Except in unusual circumstances (e.g., midyear graduation or changes in student standing), a TA appointment is for both Fall and Spring semesters of the upcoming academic year. After appointment, students must enroll in TA credits on webreg every semester to receive tuition remission. Contact the graduate program coordinator for SPN.

The TA salary is paid during the 10-month employment period. Students should be aware that no paycheck is received in July or August. Options for summer and supplemental employment are listed below.

Reappointment Process
TA reappointments are not automatic; they are contingent on student performance metrics (per School of Arts and Sciences policy) that are reviewed in April to ensure the student is in “good standing”, which is defined as:
- Maintaining a GPA of 3.0 (from transcripts)
- Adequate progression through program milestones (from IDP)
- Appropriate engagement in your doctoral research lab/with your primary research mentor (from transcript, IDP, and mentor report)
- Fulfilling all responsibilities of the TA mechanism (from teaching effectiveness ratings and Course Coordinator reviews)
- Having no disciplinary, integrity, or conduct actions or pending actions

The School of Arts and Sciences further stipulates that students must have fewer than 75 credits for reappointment. Please note that the 75-credit limit only applies to credits counting towards your graduate degree (i.e., not your TA credits), including credits transferred from other institutions or credits earned in another graduate program at Rutgers.

GRADUATE ASSISTANTSHIP (GA)

The SGS defines a GA as a “graduate student paid a salary to render service to the university, primarily in research, either directly, or under a grant or contract with other agencies, normally at the maximum rate of fifteen clock hours per week”. A GA is therefore a 12-month, ~15 hour/week position that covers tuition and provides health insurance, and a salary of ~$41,500.

In the KAP program, GAs are grant-funded positions that are only available when a faculty member has external (non-Rutgers) research funds dedicated to supporting a graduate student or the opportunity to support a student through a federal training grant (e.g., NIH T32 grant). GAs are assigned directly by the faculty with funding, not by the GPD. Nonetheless, all KAP GAs are accepted through the same process and must adhere to the policies put forth in this handbook and as dictated by the KAP Bylaws.
Student’s work on a faculty’s individual grant-funded project can be related to or independent from the student’s dissertation project. A letter clearly delineating grant and dissertation work expectations (including time allotments for each and which activities count towards grant project versus dissertation) must be provided to the student upon hiring and a signed copy must be sent to the GPD. This letter must also clearly delineate boundaries between the grant aims and the dissertation aims; students should not propose a dissertation project that addresses a primary aim of a faculty’s grant. This is to ensure that students can adequately progress in their degree requirements while fulfilling obligations to the grant-funded project and ensure a level of project independence appropriate for a doctoral student.

To align with the SAS 5-year funding commitment, faculty wishing to bring in a student on a GA line must stipulate in writing to the student and GPD that full-salary funds (plus complete tuition remission and health insurance) are available for 5 years in the program (which is rarely possible) or develop a formal plan in collaboration with the GPD for alternative funding (# of years and TA / individual fellowship expectations).

**TA/GA Student Health Insurance**

TAs and GAs who receive full academic or calendar year appointments are considered state employees, and they and their dependents/family are eligible for the same health plans and benefits as Rutgers faculty and staff. Graduate students not funded by a full-time TA or GA are also typically provided single-coverage health insurance through a student health insurance plan with United Healthcare. The fee for the student insurance plan is included in the term bill of all full-time students. If a student has an alternate health insurance plan, he or she can complete an online waiver form and remove the fee. If the waiver is not completed, the student will be enrolled in the student health insurance plan. here is no overall maximum dollar limit on the policy. Plan details, including waiver and enrollment information, may be found at [https://www.universityhealthplans.com](https://www.universityhealthplans.com). Students also may purchase coverage for their spouses and children at additional cost. For further information, contact the Office of Student Health Insurance, Hurtado Health Center, Rutgers, The State University of New Jersey, 11 Bishop Place, New Brunswick, NJ 08901-1180 (732-932-8285). Additional useful information may be found here: [http://uhr.rutgers.edu/sites/default/files/TA-GABenefitsGuide.pdf](http://uhr.rutgers.edu/sites/default/files/TA-GABenefitsGuide.pdf) [http://uhr.rutgers.edu/policies-resources/faqs/faq-health-insurance-ta-ga-less-full-time-appointment](http://uhr.rutgers.edu/policies-resources/faqs/faq-health-insurance-ta-ga-less-full-time-appointment)

**INDIVIDUAL FELLOWSHIPS**

The SGS offers a limited number of fellowships, including several focused on promoting diversity, access, and equity. These fellowships typically cover partial salaries (aligned to TA rates) and/or are available for 1 year. Supplementary funds must be made available by the primary mentor to ensure fellows are paid at the same rate as their TA/GA peers and have a guarantee of 5 years of funding.

Students are also able to apply for individual federally funded fellowships with the approval of their Primary Mentor. These grants are highly competitive and require considerable time and effort to develop. Students whose Primary Mentor is federally funded are best positioned to obtain these fellowships but a strong training team with federally funded secondary mentors may still be competitive. Both the student and mentor should be aware that research activities may be limited during the grant development period. Clear timelines and milestones towards completion and submission are strongly advised.

The National Institutes of Health (NIH) offers a National Research Service Award (NRSA / F31) to doctoral students in health-related fields (US citizen/national/permanent resident only). These prestigious awards make students more competitive for career positions after graduation. After advancing to candidacy, students can work with their Primary Mentors to submit a research project and training plan to support their dissertation work. If selected for funding, the student’s tuition and health care costs are covered and they receive a 12-month stipend of $28,224 from the NIH. Primary mentors must provide supplemental funds to ensure fellows are paid at the same rate as their TA/GA peers. Please ensure that the Primary Mentor knows that there is currently an ~$8,000 shortfall in NIH pay, which will need to be supplemented.
The National Science Foundation (NSF) offers a Graduate Research Fellowship Program (GRFP) for basic research in various science fields (US citizen/national/permanent resident only). This is a prestigious 5-year fellowship with 3 years of an annual stipend ($37,000) and a cost-of-education allowance covering tuition and fees. Students who have previously earned a MS are not eligible. Applications must be submitted before first year of graduate study is complete. Primary mentors must provide plans for funding at least two additional years so students have a guarantee of 5 years of funding.

Medical insurance for fellows is different than for TA/GAs.

GradFund
GradFund is a peer mentoring fellowship advising service designed to help graduate students learn how to apply for merit-based fellowships and grants to support their graduate study. Such activities should be undertaken with approval by the Primary Mentor and/or GPD. [https://gradfund.rutgers.edu/](https://gradfund.rutgers.edu/)

SUMMER / SUPPLEMENTARY EMPLOYMENT

When possible, Primary Mentors supplement the 10-month TA salary with summer (June/July) pay. Students should clarify summer salary in advance with their mentor. The rate should be negotiated based on available funds and summer expectations, a benchmark of ~$500/week to make the TA salary commensurate with a 12-month GA salary is reasonable. Hourly pay for those with a Bachelor's is typically $15-20/hour; those with a Master's usually earn $20-25/hour.

Outside employment is not disallowed but cannot interfere with TA/GA responsibilities or negatively affect student progress. In such cases where outside employment is interfering with performance in the KAP program, the Primary Mentor will first issue a warning to make changes. If changes are not made, the GPD may issue an academic warning letter.

Opportunities for supplemental pay during the academic year are also sometimes available. For example, large undergraduate courses in the Exercise Science major often utilize graders. These positions pay $2500 per semester and require ~6 hour/week time commitment.

HOUSING

On-campus housing is available at favorable rates for both married and single students. While this is convenient when first coming to Rutgers, most students choose to live off campus in one of the numerous communities near the university. Information on housing is sent to applicants upon acceptance by the SGS. Popular towns with rentals for graduate students include New Brunswick, Highland Park, and Piscataway. Students can live further away from campus and commute, but this should be discussed in advance with the mentor based on in-lab time expectations.
UNIVERSITY RESOURCES
The SGS offers a complete handbook about resources available to graduate students at Rutgers University. Additional information specifically pertinent to KAP students is also provided below.

**CENTRAL RESOURCES**

**RUID, NetID, and Rutgers ID cards**
Upon admission into the program, all students are given a RUID (a 9-digit number). The RUID is used by the registrar. They are also given a unique alphanumeric identifier known as a NetID (e.g., abc123). Nearly all Rutgers programs and services available to students uses the NetID. Upon acceptance, students must activate their Rutgers NetID at [https://netid.rutgers.edu/index.htm](https://netid.rutgers.edu/index.htm). Once activated, students can begin accessing Rutgers programs and utilizing Rutgers resources.

When activating their NetID, they will be asked to upload a photo online. By doing so, they will be eligible to receive an ID card that is important especially for those students who will spend time in clinical spaces and hospitals, where ID must be worn at all times. For more information about ID cards, see [https://ipo.rutgers.edu/publicsafety/iam/student-id](https://ipo.rutgers.edu/publicsafety/iam/student-id)

**Central Authentication Service**
"CAS" is the landing screen for logging into most centralized university programs. It requires an active NetID [https://cas.rutgers.edu](https://cas.rutgers.edu)

**Rutgers Connect**
The official email and calendar system for Rutgers faculty and staff is based on Microsoft 365 and includes Outlook and OneDrive (a document sharing program akin to Google Drive). Microsoft 365 and all Office software are available free for Rutgers students. Note: the Division of Life Sciences, of which the Dept. of Kinesiology and Health is a member, does not allow the use of Google email, calendar, docs, drive, or other software to conduct university business; however, these rules do not apply to students. Students should use the same programs as their primary mentor whenever possible. [https://it.rutgers.edu/rutgers-connect/](https://it.rutgers.edu/rutgers-connect/)

**My Rutgers Portal**
This site provides access to payroll and paycheck information and tax forms. It allows you to submit expenses and change your profile and personal information. Go to: [https://my.rutgers.edu](https://my.rutgers.edu)

**Parking**
The age-old question on every university’s campus, especially Rutgers is: where can I park? Rutgers provides parking to students at a cost of $200. You must have an active NetID and employee contract (for new students). Parking must be renewed annually. If you sign up for online W2s, Rutgers now has auto-renew for parking. You can pay by credit card or request a pre-tax payroll deduction, which spreads the payments across multiple paychecks. To register your car: [https://ipo.rutgers.edu/dots/permits/faculty-staff](https://ipo.rutgers.edu/dots/permits/faculty-staff). Janice Nappe is also a good resource for all parking-related concerns. KAP students do not have access to the small gated lot in front of Loree but can park behind the student center next door and many lots on all campuses.

**Registrar**
For billing, financial aid, and registration questions, see [https://registrar.rutgers.edu](https://registrar.rutgers.edu).

**ACADEMIC RESOURCES**

**Schedule of classes and Academic Calendar**
A searchable database of available classes in the upcoming semesters, including course name, department, instructor, time and date of instruction, prerequisites and special permission requirements. [https://classes.rutgers.edu/soc/#home](https://classes.rutgers.edu/soc/#home)

Semester start and end dates as well as holidays can be found at
Registration
Students must register every semester. Pre-qualifying exam, 9 credits or more is considered full-time. Post-qualifying exam, 1 credit or more is considered full-time. No more than 15 credits per semester [HARD CAP!] can be taken. Doctoral students should not forget to register for TA/GA credits to ensure tuition remission.

Canvas
The official learning management system for teaching and learning at Rutgers
https://canvas.rutgers.edu/

Box
A secure, cloud-based file storage system that allows managing and sharing of research resources. It can be used in addition to or instead of OneDrive or Google Drive. Box is free for Rutgers students at https://rutgers.app.box.com

Docusign
A secure electronic signature tool that verifies, routes, tracks and stores documents requiring signatures. This is a frequently used program by KAP students!
https://it.rutgers.edu/docusign/

University Library System
Students at Rutgers have access to an enormous collection of online scientific materials that can be accessed through the library http://www.libraries.rutgers.edu/libraries_centers or by accessing a research article through Rutgers (which should bring students to the Central Authentication Services [CAS] site).

TECHNOLOGY RESOURCES

Information Technology
Rutgers has centralized IT support and both the Department of Kinesiology and KAP have specific IT staff that can help with all computer-related issues. For general information: https://it.rutgers.edu/ If you have a specific question, purchase, need (e.g., assistance installing new software), you must create a ticket by emailing ithelp@sas.rutgers.edu. Our ‘go to’ is Tamela Wilcox (tpringle@sas.rutgers.edu).

RUWireless
RUWireless Secure is the university’s wireless network that is available to all students in all Rutgers buildings. To download RUWireless, go to https://it.rutgers.edu/ruwireless. Once downloaded, you should automatically connect whenever on campus. While I’d like to say that the program is seamless, it is not. It occasionally does not connect, requires another download, or needs the computer to be rebooted.

All students also have access to eduroam, which provides access to wireless networks at universities around the world. If you are traveling, setting up an account with eduroam is worthwhile.

RAD (Rutgers Active Directory)
Any computer purchased through the university must be secured by Rutgers IT. RAD-secured computers are easier to interface with Rutgers programs and services and have direct access to Rutgers IT services. RAD systems can be remotely accessed by IT to troubleshoot and fix problems.

Cisco Anytime Connect (Virtual Private Network)
Rutgers provides remote access to faculty, staff and students to services secured by the Rutgers network using a VPN. You must register through the self portal: https://it.rutgers.edu/virtual-private-network/
Duo
Students will need to download Duo, a dual authentication software, for all remote accessing of Rutgers programs and services. More information can be found at https://it.rutgers.edu/two-step-login/
To set it up, go to https://go.rutgers.edu/setup. Sign in with your NetID and click Start setup to begin enrolling your device. For additional instructions see https://it.rutgers.edu/two-step-login/wp-content/uploads/sites/30/2020/09/Two-step-login-enrollment-instructions-PDF-FINAL.pdf

software.rutgers.edu
Rutgers University Software Portal allows you to search and find various software that are free to students (through site licenses) or available for purchase (at an educational discount). You can download and update software based on current licensing agreements. https://software.rutgers.edu/info/login/

Some programs you should consider getting:
- Adobe Creative Cloud – including Acrobat Professional, InDesign, Photoshop, and Premiere
- Cisco Secure Endpoint Virus Protection
- Microsoft 365
- Statistics programs used by your laboratory. Mentors will often pay for these programs or you can access them free at on-campus Computing Centers. Some popular statistical programs include SAS, SPSS, OriginPro, GraphPad Prism.

A full list of available software: https://software.rutgers.edu/catalog

Virtual Meeting Programs
Rutgers has site licenses for Zoom, Webex, and Teams. Our program prefers Zoom, but many Rutgers administrators also use Teams. All are pretty user friendly, but it is recommended that you sign up for a Zoom account through Rutgers even if you have a personal account. Some Rutgers sessions are more difficult to access from non-Rutgers accounts. https://rutgers.zoom.us

Rutgers Research Administration and Proposal Submission System (RAPSS)
The Office of Research and Sponsored Programs (ORSP) provide a range of services to faculty, students and staff seeking funding from public and private not-for-profit sponsors. They provide institutional sign off on proposal submissions, accept incoming awards, and negotiate a wide variety of grant-related agreements, including sub-awards to and from not-for-profit sponsors. Neither students nor faculty can provide these sign offs independently. RAPPS is the electronic gateway for the submission, review, approval and tracking of funding proposals and related budgets for research at this institution. **RAPSS is mandatory for all new submissions of research proposals, corporate contracts, and associated items.** https://rapss.rutgers.edu/
Training on RAPSS can be found here -- https://research.rutgers.edu/rapss/training

Virtual Computer Lab
Rutgers provides access to virtual computers to allow students access to software that are not available in their labs, are too expensive to purchase, and/or are not compatible with their personal computer. It is beneficial to have set up a OneDrive account first so that the virtual computers can find and save files needed. https://it.rutgers.edu/virtual-computer-labs/

GENERAL RESOURCES

- University Safety and Security
- Services for Students with Disabilities
- Student Records and Privacy Rights under FERPA
- Policy Prohibiting Discrimination and Harassment:
- Career Services
- Rutgers Global Advancement and International Affairs
RUTGERS GRADUATE STUDENT ASSOCIATION

The Graduate Student Association (GSA) sponsors a variety of social and cultural activities for graduate students and represents their interests to the university through its legislative body. The GSA provides free legal advice to students, and it sponsors academic programs, films, mixers, trips to New York, and community action programs.

Every graduate student, full time, or part time, in any of the New Brunswick graduate and professional schools automatically becomes a member of the GSA. A president, vice president, treasurer, and secretary are elected at large. The GSA's main legislative body is its Council, which meets once a month. Every graduate program may elect one representative for every 40 students enrolled. (NOTE: Programs with less than 40 students also are allowed one elected representative.) If you are interested in being a department representative, check with your program organization or the GSA office. The GSA offices are located in the Graduate Student Lounge (GSL) in the Rutgers Student Center on College Avenue in New Brunswick and may be contacted at 848-932-7995.

The GSL is primarily for the use of graduate students and for the functions sponsored by and for graduate students. It provides a comfortable atmosphere for socializing, lounging, and studying.
DEPARTMENTAL POLICIES

Academic Integrity

Student Conduct
ACADEMIC INTEGRITY AT RUTGERS

Principles of academic integrity are taken seriously at Rutgers. All graduate students must uphold the standard of the academic community in their roles as student, researcher, and teacher. All students have a responsibility to understand and familiarize themselves with the university’s policies and ethical standards. Failure to comply with the standards and codes of the university are grounds for dismissal from the program. A summary brochure is available for quick review; complete information is available at https://academicintegrity.rutgers.edu

Academic Integrity Violations
The most common violations of the principles of academic integrity include plagiarism, cheating, fabrication, facilitation of dishonesty, academic sabotage, violation of research or professional ethics (e.g., misuse of grant or institutional funds, violating professional ethics as a TA/GA), and violations involving potentially criminal activity. Violations are divided into three categories defined by the university as:

- Level 1 - may occur due to inexperience; evidence of lack of malicious intent.
- Level 2 - misconduct of a more serious or recurrent character; misconduct that affects a major, significant, or essential portion of work; demonstrates premeditation; poses harm to others.
- Level 3 - most serious breaches of conduct; serious violation of a professional code of conduct; extreme cases of dishonesty and maliciousness or violations of law; likely to cause harm to others.

Sanctions range from grade reductions in course work, grade of F, disciplinary reprimand/probation, removal of support, suspension, dismissal from program or school; loss of academic appointments, degree revocation.

ACADEMIC PERFORMANCE POLICIES

Student progress is tracked on an ongoing basis. Students should schedule meetings with the GPD at the end of each semester to ensure that satisfactory academic progress is being made. Failure to maintain satisfactory academic progress is a violation of the standards of the SGS and can lead to revocation of financial support, academic warnings, and possible dismissal in addition to prolonging the time it will take to obtain a degree.

The SGS defines satisfactory academic progress as:

- Min GPA of 2.5 for first 12 credits and 3.0 for the remainder of time in the program;
- No more than one “U” in courses that are graded S/U;
- No more than two temporary Incompletes on record at any time; courses must be completed within 2 semesters and the GPD must approve the reasons for the incomplete and the specific plans to complete the work; and,
- Passing the qualifying exam based on the policies noted in this handbook.

The KAP program further defines satisfactory academic progress as:

- Continued active participation in research activities under the guidance of the Primary Mentor;
- Active engagement in dissertation-related activities after passing the qualifying exam.

Academic Difficulty and Procedures
In cases of academic or other program-related difficulty, the GPD will convene the KAP Executive Committee to review the case and plan a course of action. The committee will review the academic record and mentor/faculty reports to determine a course of action. In the event that it is determined that the student has failed to maintain satisfactory academic performance, a written warning letter will be issued.

The first warning letter will explain the committee’s concerns, document evidence, and recommend steps to improve performance. Ordinarily, first warnings are issued when academic performance is marginal and/or are starting to show more serious academic difficulty. First warnings may also result in academic probation when unsatisfactory progress indicates a general failure to maintain school and program standards or in cases of academic/research dishonesty. Students are expected to formally acknowledge receipt of the warning and show significant changes or progress in the subsequent semester.

After the first warning letter, failure to maintain good academic progress will result in a second warning letter
that typically includes formal written notification that processes for dismissal will begin. The second warning letter will also be sent to the student’s Primary Mentor and Doctoral Committee Members. For qualifying exams, failing the exam the first time will generate a first academic warning. A second warning will be issued if the student does not pass again after given an opportunity to retake the exam.

The students should know the resources available to them from the university, such as:
- https://grad.rutgers.edu/current-students
- https://grad.rutgers.edu/academics/academic-enrichment-programs
- https://ods.rutgers.edu/
- https://rlc.rutgers.edu/

The SGS may have additional recommendations and students should reach out to them for guidance. The Graduate Student Association or Office of Labor Relations also may be contacted. The KAP program cannot adopt alternative procedures to circumvent university policies, such as registration blocks or encouraging withdrawal. This handbook provides students with complete details of academic expectations, ramifications of failing to maintain these expectations, and avenues for students to appeal.

To process for academic dismissal begins after the second written warning of failure to maintain satisfactory academic progress is sent. When dismissal from the program is being recommended, the written warning letter will specifically note that processes for dismissal are being undertaken by the program. Failure to pass the qualifying exams after two attempts will result in an academic dismissal.

Suspension from the Program may be recommended when unsatisfactory progress is mitigated by personal circumstances outside the student's control or may be elected by the student to allow time for resolution of special circumstances through ordinary means.

Student Appeals
All students should be aware that they can appeal academic decisions within thirty days of the written warning. First, students should appeal to the KAP Executive Committee. They have the right to examine all evidence that led to the warning letter and discuss that evidence with the committee; these meetings may include the Primary Mentor. Both the evidence and notes/minutes from any subsequent discussion will become part of the student’s file and be maintained by the GPD.

Should the appeals process within the program not rule in the student’s favor, a recommendation for dismissal may be sent to the Dean of the SGS, who may delegate the process of initial review to one or more senior deans within SGS. Initial review may result in (a) a delay in dismissal accompanied by specific recommendations to the program for improving the academic performance of the student; (b) recommendation that the student file a formal appeal with the SGS, or (c) decisions to process the dismissal of the student from the SGS. Final dismissal of a student from the program may be done only by the Dean of the SGS in accordance with established procedures.

STUDENT CONDUCT
All students are expected to abide by the university and school codes of conduct and professionalism. The University Code of Student Conduct is published at https://grad.rutgers.edu/sites/default/files/2021-07/10-2-11-current%20%281%29.pdf. All students are expected to be familiar with the policies. This extensive document provides guidelines for behavior, including behaviors that are not tolerated at Rutgers.

The SGS further expects honesty, integrity, respect, and tolerance. Students are expected to work diligently towards goals, take responsibilities seriously, and demonstrate professionalism in all activities including their academics, teaching, and research. Students are expected to learn to provide and accept constructive feedback. Failure to uphold these expectations may result in integrity violations.
Dissertation Proposal Approval

Student Name: ________________________  Year of entry into KAP: ________________

Date of proposal meeting: ________________________________

Was a written dissertation proposal provided to the committee?  □ Yes  □ No

Was there an oral presentation and discussion with the full committee?  □ Yes  □ No

What was the outcome of the proposal meeting?

□ Approved. Student may begin progress towards the dissertation defense based on the materials presented to the committee.

□ Approved with stipulations. Student may begin progress towards the dissertation defense based on the revisions provided to the student by the committee.

□ Revisions required. Student may not begin progress towards the dissertation defense until the committee is reconvened and new document is reviewed.

Has a date been set for the next meeting? __________________________

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Student (Signature): __________________________

Graduate Program Director (Signature): __________________________

Approval date: __________________________