

Academic Year 2027 Waseda University

Graduate School of Sport Sciences

Contents of Research Themes and List of Subject Codes

The following is information as of September 30th, 2026.

<Points to note>

- 1 **Please contact a prospective supervisor before applying to prevent any mismatch regarding the research content of an applicant or the research environment after enrollment. Applicants should thoroughly consult and confirm details such as the intended research topic, the research environments, and the specific way their research activities will be conducted after enrollment, including the time required for research and expected research outcomes necessary for obtaining the degree.**

It is especially important to confirm these details carefully in advance, because the prospective supervisor and research environment will form the foundation of your research throughout the program. The school strongly recommends that applicants visit the campus to observe the research environment before applying so that they can gain a clear understanding of the conditions under which your research will be conducted.

<attention>

We would response only the message related with initial contact. Regarding inquiries about admissions, please contact us through the inquiry form below.

[Inquiry Form \(Faculty of Human Sciences and Faculty of Sport Sciences\)](#)

- 2 **On the message, you should indicate the following information:**

Please directly contact each faculty member using the email address provided in the “List of Research Supervision Topics” from page 7 onward.

Alternatively, you may search the Waseda University Researcher Database (<https://w-rdb.waseda.jp/search?m=home&l=en>) or individual laboratory websites and contact the relevant faculty member directly.

- 1) The name of the area of specialization,
- 2) The type of program (Master’s Program or Doctoral Program),
- 3) Your full name,
- 4) Your contact information (Address, phone number, e-mail address, etc.) and
- 5) Prospective supervisor’s name

*Please attach your CV, and a document file (e.g. PPT, word) describing your research interest.

In some cases, such as overseas business trip, we may not be able to contact the supervisor right away or the reply may be delayed. Please start consulting and confirming with the supervisor early on.

- 3 Enter the subject code in the application form without mistake by referring to the following pages.

<List of Subject Code : English-based Master's Program>

Research Area	Subject code [Master]	Specialization	Qualification	Name of supervisor
Health and Exercise Science 1	EN0	Muscle Biology	Professor	Takayuki Akimoto
	EN2	Exercise Physiology	Professor	Masashi Miyashita
	EN1	Sleep Science	Professor	Masaki Nishida
	ENS	Sports Epidemiology	Professor	Susumu Sawada
Health and Exercise Science 2	EN5	Biodynamics	Professor	Yasuo Kawakami
	EN6	Sport physiology & Neuroscience	Professor	Yudai Takarada
	EN3	Biomechanics	Professor	Toshimasa Yanai
Sport Management	EN8	Sport Marketing	Professor	Hiroataka Matsuoka
	EB0	Sport & Entertainment Management	Professor	Shintaro Sato
	EB4	Sport Promotion	Professor	Yoshio Takahashi
	EB5	Strategic Management in Sport	Associate Professor	Yoshihiro Oi
	EB6	Sport and International Development	Professor	Chiaki Okada

<List of Subject Code : English-based Doctoral Program>

Research Area	Subject code [Doctor]	Specialization	Qualification	Name of supervisor
Sport Culture	M25	Culture of Sport	Professor	Kohei Kawashima
	M35	Sport Education	Professor	Eiichiro Fukami
	M45	Sports and Body Culture in Asia	Professor	Ko Takashima
	M50	Sport and International Development	Professor	Chiaki Okada
Sport Business	N26	Sport Marketing	Professor	Hiroataka Matsuoka
	N36	Sport & Entertainment Management	Professor	Shintaro Sato
	N40	Sport Promotion	Professor	Yoshio Takahashi
Sports Medicine	P32	Health and Behavioral Sciences	Professor	Koichiro Oka
	P34	Sports and Exercise Medicine	Professor	Koji Kaneoka
	P36	Preventive Medicine	Professor	Katsuhiko Suzuki
	P38	Athletic Training	Professor	Norikazu Hirose
	P42	Muscle Biology	Professor	Takayuki Akimoto
	P44	Exercise Metabolism	Professor	Masashi Miyashita
	P46	Functional Anatomy for Orthopaedic Sports Medicine	Professor	Tsukasa Kumai
	P50	Health Education	Professor	Kaori Ishii
	P54	Sleep Science	Professor	Masaki Nishida
	P48	Sports Epidemiology	Professor	Susumu Sawada
	P56	Sports Physiology	Professor	Seiji Maeda
	P58	Applied Physiology	Professor	Motohiko Miyachi
	P66	Environmental Physiology	Associate Professor	Yuri Hosokawa
	P68	Sports Biochemistry and Genetics	Associate Professor	Kumpei Tanisawa
Exercise Science	Q05	Biodynamics	Professor	Yasuo Kawakami
	Q38	Sport physiology & Neuroscience	Professor	Yudai Takarada
	Q42	Biomechanics	Professor	Toshimasa Yanai
	Q48	Exercise Physiology	Professor	Naoyuki Hayashi
Coaching	R30	Coaching of Budo: Japanese Martial Arts	Professor	Misaki Iteya

Academic Year 2027 Waseda University

Graduate School of Sport Sciences Contents of Research Themes

Master's program

Health and Exercise Science

The master's program with a specialization of health and exercise science is designed to help students develop a thorough understanding of the basic principles and comprehensive knowledge related to health and exercise science. Students will learn fundamental research skills in the topic of their choice within the field of specialization. Conducting their own research projects and submitting a master's thesis are required for completing the master's degree program.

Health and Exercise Science 1

By Akimoto, Sawada, Miyashita, Nishida

Health and exercise science is an interdisciplinary field of research/studies and the discipline of health and exercise science focuses on the integration of exercise/physical activity into health care, sports performance, disease prevention and rehabilitation. The primary focus of this course is promoting health and preventing and treating disease through healthy behaviors, emphasizing physical activity and nutrition.

Graduate students in this course will explore physiology, psychology, nutrition, metabolism, public health and physiological principles of exercise. We specifically focus on the following themes and instruct related research.

<Master's Thesis Advisor>

Subject code	Specialization	Qualification	Name
EN0	Muscle Biology	Professor	Takayuki Akimoto
ENS	Sports Epidemiology	Professor	Susumu Sawada
EN2	Exercise Physiology	Professor	Masashi Miyashita
EN1	Sleep Science	Professor	Masaki Nishida

Health and Exercise Science 2

By Kawakami, Takarada, Yanai

The master's program with a specialization of health and exercise science focuses on the integration of exercise/physical activity into health care, sports performance, disease prevention and rehabilitation. In this directed research, graduate students will learn fundamental research skills directly from the experts who specialize in the field of exercise science, such as cognitive neuroscience, biodynamics, biomechanics, motor control, motor nerve physiology and sport psychology. The goal for all students enrolled in this directed researches are to complete their own research proposal, conduct experiments and write a master's thesis to fulfill the requirement for the master's degree.

<Master's Thesis Advisor>

Subject code	Specialization	Qualification	Name
EN5	Biodynamics (Biomechanics & Exercise Physiology)	Professor	Yasuo Kawakami
EN6	Sport physiology & Neuroscience	Professor	Yudai Takarada
EN3	Biomechanics	Professor	Toshimasa Yanai

Sport Management

Sport Management (Directed Research M) A/B

By Matsuoka, Sato, Takahashi, Oi, Okada

The master's program with a specialization of sport management focus on the effective management of sport organizations such as national and international sport governing bodies, professional sports leagues, teams and clubs. Students will acquire knowledge on various management elements related to sport such as Sport management, Sport marketing, Sport governance, Sport policy, Sport event and facility management, and Sport finance and economics. From these academic viewpoints, students will analyze sport phenomena, conduct their own academic as well as practical research projects and prepare a master's thesis which is required for completing the master's degree program.

<Master's Thesis Advisor>

Subject code	Specialization	Qualification	Name
EN8	Sport Marketing	Professor	Hiroataka Matsuoka
EB0	Sport & Entertainment Management	Professor	Shintaro Sato
EB4	Sport Promotion	Professor	Yoshio Takahashi
EB5	Strategic Management in Sport	Associate Professor	Yoshihiro Oi
EB6	Sport and International Development	Professor	Chiaki Okada

Each Professor's Research Topics

1. Sport Humanities and Pedagogy Research Area

Research Domain	Culture of Sport (Doctoral Program)	Supervisor's Name	Kohei Kawashima
Research Topics		Degree	Doctor of Philosophy, Brown University
Description	Based on methodologies of history of sport and anthropology of sport, my field of study covers the histories and contemporary societies of the United States and Japan. More specifically, I welcome projects that seek to investigate the meanings and roles of any or all of class, race/ethnicity, and/or gender identities for and through the foundation and development of modern sports in the United States and/or Japan during the early-modern and/or modern eras. I also welcome projects that target at the process of the spread of American ideologies and philosophies of sport, and/or specific games of sports, such as baseball, American football, basketball, and volleyball to Meiji, Taisho, Showa, Heisei, and Reiwa Japan, and their impacts over the thoughts and activities of athleticism in Japan.		
Keywords	United States, class, race, ethnicity, gender, Japan, history, anthropology		
Web page			
E-mail	kawashimakoei■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

Research Domain	Sport Education (Doctoral Program)	Supervisor's Name	Eiichiro Fukami
Research Topics	Effective teaching and coaching methods in PE classes and youth sports teams	Degree	Ph.D., Tsukuba University
Description	This course will pursue how people can develop a love of exercise and sports, enjoy sports throughout their lives, and enrich their lives. In particular, focusing on children who lack confidence or have difficulty with exercise, we would like to clarify what kind of approach instructors need to take in order for them to enjoy and engage in sports. The research approach includes visiting schools and clubs to observe classes and activities, reading literature on physical education and sports, and actually testing what they have learned theoretically through physical exercise. In this course, we welcome not only those who aim to become leaders, but also those who love sports and want to bring joy and inspiration to many people through sports.		
Keywords	PE class, PE teacher, teaching, coaching, sport team,		
Web page			
E-mail	eiichiro■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

Research Domain	Sports and Body Culture in Asia (Doctoral Program)	Supervisor's Name	Ko Takashima
Research Topics	History of Sports, Asian History	Degree	Doctor of Letters, Kyoto University
Description	This course offers guidance on history of sports and body culture in Asia. My research interests include (1) introduction of modern western sports into East Asia, (2) transnational relationships among East Asian countries through sports, (3) history of sports in imperial Japan. Students are required to acquire knowledge and methodology of history and sport sciences as well as to view sports and body culture critically from a broad perspective.		
Keywords	Asia, History		
Web page			
E-mail	taka-shimako■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

Research Domain	Sport and International Development	Supervisor's Name	Chiaki Okada
Research Topics	Sport for Development and Peace (SDP), Sociology of Sport, Lifelong Sport	Degree	Ph.D., Kobe University
Description	This seminar empirically and critically explores sport's role in addressing complex social issues like poverty, conflict, and inequality. Rather than uncritically accepting existing development models, we redefine sport's social functions by prioritizing "local knowledge" from domestic and international fields (e.g., Africa, Asia, Japan). Key themes include peacebuilding, social inclusion, gender empowerment, and "conviviality" (living together in diversity). Graduate students will cultivate logical thinking and an empathetic imagination for the field, mastering analytical methodologies to generate original academic insights by bridging theory and practice.		
Keywords	Sport for Development and Peace (SDP), social inclusion, peacebuilding, conviviality, gender equity, fieldwork		
Web page	https://sportdp.w.waseda.jp/		
E-mail	chiaki■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

2. Sport Business Research Area

Research Domain	Sport Marketing (Master's Program, Doctoral Program)	Supervisor's Name	Hiroataka Matsuoka
Research Topics	sport management, sport marketing, sport consumer behavior	Degree	Ph.D.(sport management), Ohio State University
Description	Marketing is indispensable in business of sport organizations for both professional sports clubs and teams that sell “spectator sports” and clubs and associations that sell “participation sports.” Sport marketing can be divided into “marketing of sport” that offers sports by efficiently producing them, and “marketing through sport” in which businesses implementing promotional activities by leveraging sports, and in both these cases utmost priority is placed on understanding the sport consumers (those who play or watch sports). The course focuses on understanding sport consumers’ psychology and behavior, which is necessary for effective marketing in sport business sites and the students acquire research methods required for their interpretation. Research themes may include motivation of sport spectators, fans’ commitment to a particular sport team, perception of service quality and satisfaction among sport participants and spectators, impact of sports club promotion and that of sports sponsorship.		
Keywords	sport business, sport marketing, sport consumer, sport sponsorship		
Web page			
E-mail	matsuoka-hiro■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

Research Domain	Sport & Entertainment Management (Master's Program, Doctoral Program)	Supervisor's Name	Shintaro Sato
Research Topics	consumer behavior in sport, tourism, & entertainment; sport management	Degree	Ph.D.(Sport Management), University of Florida
Description	Do we really know what kinds of experiences can make consumers happy? Why do some businesses succeed while others do not? How can sport and entertainment products contribute to city and community development? To answer these questions, our lab takes a multi-disciplinary approach (e.g., psychology, strategic management, economics) to conduct various research in sport, tourism, and entertainment contexts. The mission of our lab is to provide scientific evidence that can help various stakeholders’ decision-making processes, including cities and government, companies, and consumers. Members of our lab are highly expected to (1) deliver academic presentations at recognized conferences and (2) publish scientific papers in peer-reviewed journals during the program.		
Keywords	sport management, consumer behavior in sport, tourism and entertainment		
Web page			
E-mail	satoshintaro■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

Research Domain	Sport Promotion (Master's Program, Doctoral Program)	Supervisor's Name	Yoshio Takahashi
Research Topics	Sport Policy, Sport Promotion, Sport Sociology	Degree	Dr. Sport and Wellness Promotion, University of Tsukuba
Description	Sport is a culture that has spread as an activity for spending happy hours of leisure and boredom. Such culture develops in space and time constrained by the social environment and social and cultural institutions. Therefore, this research program aims to develop the ability to analyze sports-related policies, administration, politics, and economics using humanities and social science methods. Graduate students are expected to have an interest in social issues, to write papers on the relationship between sport and these issues using logical thinking, and to have the motivation and ability to not only promote sport, but also to propose and implement solutions to social issues through sport.		
Keywords	Policy Process, Public Administration, Sports Promotion, Sociology of Sport		
Web page			
E-mail	takahashi.yoshio■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Strategic Management in Sport (Master's Program)	Supervisor's Name	Yoshihiro Oi
Research Topics	Strategic Management in Sport Global Sport Business	Degree	Doctor of Business Administration, Chuo University
Description	This course gives you a real and hands-on experience of the global sports business. You will learn both theory and real-world practice, moving back and forth between them in an exciting way. We will look at the sports business from a strategic point of view and explore how it works today, as it continues to change and become more complex. With 25 years of experience in the sports business world, I will explain how professional sports leagues and organizations are managed. We will also learn how athletes build their careers, how sports generate revenue through media and sponsorship, the economic and social impact of major sports events, and the latest trends such as digital media and fan engagement. This course is not just about memorizing facts. You will be encouraged to think deeply about what the sports business really means to society.		
Keywords	Strategic Management in Sport, Global Sport Business		
Web page			
E-mail	y.oi■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

3. Sport Medicine Research Area

Research Domain	Health and Behavioral Sciences Research Guidance (Doctoral Program)	Supervisor's Name	Koichiro Oka
Research Topics	health and behavioral sciences; behavioral epidemiology	Degree	Ph.D. (Human Sciences), Waseda University
Description	The course offers guidance for research on behavioral change, especially, reducing sedentary behavior and physical inactivity in various setting (workplace, community, hospital, and school, etc). Specifically, (1) development of lifestyle modification program based on behavioral theory (e.g., ecological model focusing on environmental factors), (2) interventions for reducing sedentary behavior in the workplace, (3) dissemination of health information utilizing health communication, (4) development/evaluation of a program for long-term care prevention among frail older adults (improvement of physical function, prevention of dementia, etc.), (5) application of cognitive behavioral therapy for senior citizens' self-management of knee and back pain, (6) improvement of non-cognitive ability among children and adolescents through sports/outdoor activities, and (7) psychological support for athletes based on cognitive behavioral therapy. The course supports the students so that they will learn the perspective and specific methods of behavioral scientific approach that is useful in practice of health promotion through health care, welfare, medical/nursing/rehabilitation, school education and sports instructions.		
Keywords	sedentary behavior, physical inactivity, behavioral change, health communication, cancer prevention, dog walking, cardiometabolic health, long-term care prevention, musculoskeletal disorders, cognitive behavioral therapy, mental health, non-cognitive ability, walkability/built environment, social capital		
Web page	https://www.koka.tokyo/		
E-mail	koka■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

Research Domain	Sports and Exercise Medicine (Doctoral Program)	Supervisor's Name	Koji Kaneoka
Research Topics	sports medicine; orthopedics, biomechanics	Degree	Ph.D. in medical science, Tsukuba University
Description	The course clarifies pathogenesis of spine disorder among athletes such as back pain and intervertebral disc disorder as well as spine injuries using methods such as epidemiological research, biomechanical analysis, and electromyographic analysis. Using the outcome, we will come up with methods to prevent disorders and injuries that are based more on scientific facts, implement them in practice, and assess their effects in search of more effective preventative measures. Moreover, we will develop exercise therapy for a wider range of patients, not limited to athletes, with spine disorders represented by back pain using the knowledge gained in this process and practice them.		
Keywords	back pain, cervical spine injury, traumatism mechanism, disability prevention, impact biomechanics, exercise therapy		
Web page			
E-mail	kaneoka■waseda.jp (Please change the “■” to “@”when sending an e-mail)		

Research Domain	Preventive Medicine (Doctoral Program)	Supervisor's Name	Katsuhiko Suzuki
Research Topics	applied physiology, internal medicine, immunology	Degree	M.D., Ph.D (medical sciences), Hirosaki University
Description	We study methodology on analyses and assessments of physical stress and tissue damage due to exhaustive exercise and training together with their preventive countermeasures such as nutrition, supplementation, rehydration and alternative medicine. Specifically, host defense mechanisms such as leukocyte functions, stress hormone and cytokine dynamics, oxidative stress responses, and skeletal muscle and other organ damage/recovery are analyzed in relation with exercise and training. Also, pathological process and prevention of lifestyle-related disease and aging are studied by human and animal studies. Students are required for some experiences of biological and chemical experiments, statistical analyses and presentation skills so that they can acquire advanced methods and techniques of medical and life sciences-based approach for research activities.		
Keywords	exercise, leukocyte, cytokine, inflammation, oxidative stress, aging, lifestyle-related disease		
Web page	http://www.f.waseda.jp/katsu.suzu/english		
E-mail	katsu.suzu■waseda.jp (Please change the “■” to “@”when sending an e-mail)		

Research Domain	Athletic Training (Doctoral Program)	Supervisor's Name	Norikazu Hirose
Research Topics	athletic training, conditioning, athletic injury prevention, talent identification and development, and human behavior and coordination in sport and exercise (including inter-segmental, intra-individual, interpersonal, and group-level coordination)	Degree	Ph.D., University of Tokyo
Description	The Evidence-Based Research in Athletic Training course introduces students to the research process and theory development in the field of athletic training, grounded in evidence-based practice (EBP). This course extends beyond traditional approaches focused solely on injury prevention and rehabilitation, positioning athletic training research as a scientific framework for understanding and explaining human behavior, interaction, and coordination across multiple levels of organization. In addition to research on the prevention and reconditioning of sports-related injuries, the course examines strength and conditioning research. Particular emphasis is placed on the quantitative analysis of coordination at multiple levels, including inter-segmental coordination among body parts (e.g., trunk–limb and upper–lower limb coordination), neuromuscular and biomechanical control of movement, coordinated behavior within individuals and across groups or organizations, and the measurement of social interaction in sport, exercise, and training environments.		
Keywords	athletic training; prevention of sports injuries; conditioning; human behaviour; inter-segmental coordination; collective coordination; performance		
Web page			
E-mail	toitsu_hirose■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Muscle Biology (Master's Program, Doctoral Program)	Supervisor's Name	Takayuki Akimoto
Research Topics	athletic training, conditioning, athletic injury prevention, talent identification and development	Degree	Ph.D. in medical science, University of Tsukuba
Description	Study on the mechanism of muscle plasticity by mechanical stress. The main research topics of the current laboratory are (1) Molecular mechanism of skeletal muscle plasticity by mechanical stress, (2) Molecular mechanism of exercise-induced health benefits, and (3) the development of <i>in vitro</i> construction of skeletal muscle tissue. For Ph.D. candidates, I would like to train you to be a scientist who can set autonomous subjects that you are willing to explore, conduct experiments, analyze data, write and publish papers, and obtain research funding.		
Keywords	Molecular & Cellular Biology, Reverse Genetics, Biotechnology, Transcriptional regulation, Post-transcriptional regulation, Vision, Hard-work, Team-work		
Web page	https://www.waseda.jp/sem-muscle/index.html		
E-mail	axi■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Exercise Metabolism (Master's Program, Doctoral Program)	Supervisor's Name	Masashi Miyashita
Research Topics	Exercise Metabolism, Exercise Physiology, Exercise Nutrition, Eating Behaviour	Degree	Ph.D., Loughborough University, United Kingdom
Description	My research interests are in the physiology and nutrition of physical activity (exercise/sports and daily activities) and public health with an interest in both the basic science of physical activity and the applied aspects that relate to health in physical activity. Much of my work has examined the effects of physical activity on risk factors for cardiovascular disease. A major focus of my research has concerned the effects of physical activity on fat (triacylglycerol), carbohydrate (glucose) and protein (amino acids) metabolism after meals in humans. Another main activity includes physical activity and appetite regulation, nutrition and exercise performance, and recovery science in humans. I also have an established network with my domestic and international collaborators including academic institutions and industries for conducting cutting-edge research on physical activity and health or performance.		
Keywords	postprandial metabolism, appetite regulation, exercise performance, public health		
Web page	https://miyashita.w.waseda.jp/en/index.html		
E-mail	m.miyashita■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Functional Anatomy for Orthopaedic Sports Medicine (Doctoral Program)	Supervisor's Name	Tsukasa Kumai
Research Topics	Sports Medicine; Functional Anatomy; Orthopedic Foot & Ankle Surgery; Dance Medicine; Cycling Medicine	Degree	Ph.D. in medical science, Nara Medical University
Description	Musculoskeletal overuse injury may be a great trouble to cause athletes not only performance loss but also career ending. Understanding pathomechanics from a point of view of functional anatomy is essential to provide proper treatments and prevention strategies to the injuries. Aim of this course is to establish an idea for athletes to help prevent injuries and return earlier to play. Our laboratory will give opportunities of biomechanical analysis, electromyography, ultrasound technique, cadaver dissection. The main research interests of our lab are (1) anatomical evidences for sports specific motions and disorders, (2) the morphology and repair process of tendon-bone junction (enthesis biology), (3) the morphology and function of heel fat pad, (4) soft-tissue elasticity by shear wave elastography, (5) echo-guided intervention and surgery, (6) extracorporeal shock wave therapy.		
Keywords	functional anatomy, tendinopathy, overuse injury, minimally invasive treatment		
Web page	https://prj-kumai-waseda.w.waseda.jp/		
E-mail	kumakumat■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

Research Domain	Health Education(Doctoral Program)	Supervisor's Name	Kaori Ishii
Research Topics	growth and development, health education	Degree	doctor (medicine), Tokyo Medical University
Description	one of Japan's most important issues is the maintenance and improvement of lifelong physical and psychological health. Therefore, it is crucial to develop effective measures for acquiring a healthy lifestyle. In order to increase healthy lifestyles, it is necessary to understand the health behaviors of the population and how these behaviors can affect physical and psychological health, identify the factors related to these health behaviors, and establish and promote an approach method. The course is concerned with health promotion in the field of health education (particularly physical activities and sedentary behaviors). The main theme of this course is applying various theories of health education, elucidating factors which are related to the promotion of physical activities and the decrease of sitting activities in each stage of life, from childhood to old age, and discussing methods to promote these activities. The course aimed to assess the health promotion needs of the population, scientifically identify solutions, and determine specific methods that can be utilized in the health education setting.		
Keywords	health behavior, growth and development, behavioral science		
Web page			
E-mail	ishiikaori■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

Research Domain	Sleep Science (Master's Program, Doctoral Program)	Supervisor's Name	Masaki Nishida
Research Topics	sleep science, sleep medicine, sports science, chronobiology, psychiatry	Degree	M.D., Ph.D. Institute of Science Tokyo
Description	The laboratory aims to explore the intricate relationships among sleep, biological (circadian) rhythms, and sports performance or physical activity. The main research themes include: - The effects of sleep and daytime sleepiness on sports performance and physical activity. - The impact of sports and physical activity on sleep quality and sleep patterns. - The associations between biological rhythms-particularly chronotype (morningness-eveningness), social jet lag, and physical activity. This English-taught master's degree program emphasizes research approaches that require close interaction with human participants. Applicants should note that effective communication with participants is essential for conducting research in this laboratory. Although this is an English-based degree program, the research environment is embedded within a Japanese academic and institutional context. Accordingly, students with a functional level of Japanese proficiency will be better positioned to conduct research smoothly and to engage fully in laboratory and related academic activities.		
Keywords	sleep, circadian rhythm, wearable device, electroencephalography, sleep disorder		
Web page	https://nishida.w.waseda.jp		
E-mail	nishida■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Sports epidemiology (Master's Program, Doctoral Program)	Supervisor's Name	Susumu Sawada
Research Topics	sports epidemiology, physical activity epidemiology, public health	Degree	Ph.D. in medicine, Juntendo University
Description	Sports epidemiology provides scientific evidence to society to solve the issues of preventive medicine, public health, and several sports fields. - For master program, doctoral program [first half] Our team will support you as follows, 1) setting an appropriate research theme, 2) finding relevant papers related to the theme, 3) critical appraisal of related papers, 4) making an appropriate study design for solving the research question, 5) implementation of the study, 6) appropriate analysis of the data, 7) appropriate interpretation of the results, 8) writing of the master thesis. Through these processes, we will support the master's program students to become experts who contribute to society by utilizing scientific evidence. Also, we will support the building of the basic ability to proceed to the second half of the program for doctoral students. - For doctoral program [second half] Our team will support you as follows, 1) setting a research theme that's necessary to solve in society, 2) making high-quality study design for solving the research theme, 3) implementation of the study using appropriate methods, also appropriate analysis and interpretation of the results, 4) providing a research environment for cooperating with internationally renowned researchers to create high-quality papers. Through these processes, we will support the building of the ability to solve the problem in preventive medicine, public health, and several sports fields.		
Keywords	public health, health promotion, physical activity, physical fitness, biostatistics		
Web page	https://sites.google.com/site/ssawadalab/		
E-mail	s-sawada■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Sports Physiology (Doctoral Program)	Supervisor's Name	Seiji Maeda
Research Topics	Sports Physiology, Applied Health Science	Degree	Ph.D., University of Tsukuba
Description	My research interest is in sports physiology and applied health science. A major focus of our research has concerned the effects of regular exercise and/or dietary improvement on arterial stiffness in middle-aged and older humans. Aging increases arterial stiffness. Increase in arterial stiffness is a key risk factor for cardiovascular disease. Our laboratory has demonstrated that regular aerobic exercise and/or dietary improvement results in a significant decrease in arterial stiffness in middle-aged and older humans. Furthermore, we have showed that vascular endothelium-derived vasoactive factors, such as endothelin-1 and nitric oxide, may be an important mechanism underlying the beneficial effect of regular aerobic exercise on arterial stiffness.		
Keywords	aging, arterial stiffness, cardiovascular disease, exercise, diet		
Web page			
E-mail	seiji.maeda■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Applied Physiology (Doctoral program)	Supervisor's Name	Motohiko Miyachi
Research Topics	Exercise Physiology, Health and Sports Science	Degree	Ph.D., University of Tsukuba
Description	In the Applied Physiology Laboratory, professor and students are conducting research to elucidate the mechanism of physical adaptation by sports, exercise and diet, and to devise new methods for improving physical fitness and health status. We provide knowledge and opportunities for acquire the research methods of physiology and epidemiology to clarify the interaction between physical activity and diet for extending healthy life expectancy, and support writing their dissertation and establishing procedures for social implementation of research results. Especially, the doctoral students are gaining knowledge and experience regarding research preparation and performing such as acquisition of research funds and application for ethical review, implementation of safe and efficient experiments and surveys, and management of research execution such as fair publication and disclosure of research findings. Moreover, they aim to publishing academic papers and create intellectual property. The research topics of the Laboratory as follows; (1) associations between types of exercise training and adaptation of respiration, circulation, and metabolism, (2) effective physical activity and eating habits to prevent non-communicable diseases and frailty, (3) new methods of assessment for physical activity and fitness, (4) association between microbiome and lifestyle. Of course, we also support the practice on the research topics desired by each student.		
Keywords	physiology, epidemiology, training, adaptation, physical fitness, microbiota, lifestyle, diet		
Web page	https://w-rdb.waseda.jp/html/100002864_en.html		
E-mail	miyachim■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Sports Biochemistry and Genetics (Doctoral program)	Supervisor's Name	Kumpei Tanisawa
Research Topics	exercise biochemistry, sports genetics, genomic epidemiology	Degree	Ph.D (Sport Sciences), Waseda University
Description	The Sports Biochemistry and Genetics laboratory has been conducting research on the effects of physical activity, diet, and other lifestyles on the human body and health as well as their underlying mechanisms using physiological, biochemical, epidemiological, and genetic approaches. We have also been focusing on the inter-individual variability in the response and adaptation to physical activity and diet as well as exploring their determinants. The current research topics of our laboratory are the following: (1) understanding of inter-individual variability in responses and adaptations to physical activity and diet and their determinants, (2) identification of genetic factors that determine inter-individual variability in physical fitness and athletic performance, (3) establishment of personalized exercise and nutritional prescriptions using genomic information and gut microbiome, (4) understanding of the mechanisms of disease prevention through physical activity and diet. This course offers guidance to students on learning the methods for human studies using biochemistry and genetic approaches as well as the entire process from designing research to writing papers. For students in the doctoral course, I will support students so that they can publish multiple papers in high-quality international journals during their studies.		
Keywords	genetics, genomics, genetic variant, SNP, gut microbiome, omics, inter-individual variability, personalized exercise and nutritional prescriptions, physical activity, fitness, diet, lifestyle, health		
Web page	https://sites.google.com/view/ktanisawa-lab		
E-mail	tanisawa■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Environmental Physiology (Doctoral program)	Supervisor's Name	Yuri Hosokawa
Research Topics	Athletic Training, Sports Safety, Thermal Physiology	Degree	Ph.D. in Exercise Science, University of Connecticut (USA)
Description	Our research area focuses on exercise physiology in extreme heat and the etiology of exertional heat illness via a multidisciplinary approach by linking sports science, epidemiology, biometeorology, and public health. We aim to investigate and disseminate evidence-based treatment and prevention methods for exertional heat illness and other exertional disorders commonly observed in athletic, prehospital settings. Furthermore, we are actively practicing the application of athletic training and sports medicine in the workplace to enhance workplace safety and improve workers' performance. Key ongoing research and themes include (1) injury surveillance studies, (2) evidence-based policy-making for the prevention of sports-related sudden deaths, (3) development of heat acclimatization programs for tactical athletes, (4) establishment of exertional heat stroke pre-hospital management, and (5) evaluation of heat tolerance among athletes.		
Keywords	exertional heat illness, heat tolerance, sports safety, prehospital medicine, event medicine, sudden deaths in sports		
Web page	https://prj-spo.w.waseda.jp/spo/		
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4. Exercise Science Research Area

Research Domain	Biodynamics (Master's Program, Doctoral Program)	Supervisor's Name	Yasuo Kawakami
Research Topics	Biodynamics (exercise physiology, biomechanics, functional anatomy)	Degree	Ph.D., (pedagogy), The University of Tokyo
Description	In this course students carry out in-vivo measurements of morphological and functional features of the human body and musculoskeletal systems in relevance to the movement performance. Non-invasive visualization and quantification of anatomical and functional attributes of humans and contracting skeletal muscles are measured with tissue-imaging modalities such as ultrasonography and MRI, as well as biomedical analysis using 3-dimensional photonic scanning, dynamometry, electromyography and near infrared spectroscopy. We also collaborate with researchers in the field of anatomy for observations and testing of human donors' specimens. Muscle-tendon-fascia interactions are quantified in search for the factors that affect performance of daily physical activities and sports. Acute as well as chronic changes in the human body due to training, inactivity, growth, aging and fatigue are also in the scope of research. Undergoing projects include but not limited to: 1) Musculotendinous mechanics leading to movement performance or injury, 2) Individual variability & adaptability, and sex difference in musculoskeletal properties, 3) Growth-related changes in body dimensions, neural and anatomical features and exercise performance, 4) Health promotion of the elderly through exercise, and 5) Exercise performance enhancement through the development of outfit, footwear, and devices.		
Keywords	skeletal muscle, tendon and fascia, ultrasound, MRI, biomedical signal & image processing, biometrics and engineering, growth, aging, athletic performance, individual and sex differences		
Web pages	https://sites.google.com/view/waseda-biodynamics-lab-eng/ https://www.miraikan.jst.go.jp/research/facilities/HumanMovementPerformance/ https://www.instagram.com/kawakami_lab_waseda/		
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Research Domain	Sport physiology & Neuroscience (Master's Program, Doctoral Program)	Supervisor's Name	Yudai Takarada
Research Topics	Biological and Life Sciences / Neuroscience, Physiology	Degree	Doctor (Multidisciplinary Sciences), University of Tokyo
Description	The laboratory investigates the neural mechanisms that regulate maximal voluntary contraction (MVC) and the hierarchical processes through which effort perception is constructed, distorted, and adapted. Effort is viewed as a multilayered integration of peripheral afferent signals, cortical inhibitory dynamics within the primary motor cortex (M1), compensatory engagement of higher order motor regions, and cognitive–motivational systems such as dopaminergic reward pathways and the locus coeruleus–noradrenergic (LC NA) system. Blood flow restriction (BFR) is used as an experimental model to clarify distortions in perception–action coupling and to examine how acute perceptual changes accumulate into chronic neuromuscular adaptations. Additional research focuses on unconscious motivation, reward related arousal, and behavioral interventions such as shouting, which reduce M1 inhibition and enhance MVC. These findings are applied to rehabilitation, safe hypertrophy in older adults, and athletic performance enhancement. Graduate students are expected to integrate physiology, neuroscience, motor control, and cognitive science to develop independent research questions. Familiarity with neurophysiological techniques—including pupillometry, transcranial magnetic stimulation (TMS), functional MRI, H reflex measurements, and electromyography—is desirable. Research topics outside these specialized domains are not supervised. Research topics outside these specialized domains are not supervised.		
Keywords	motivation, reward system, pupillometry, transcranial magnetic stimulation (TMS), functional MRI, H-reflex, neuromuscular system, perception of effort, maximal voluntary contraction (MVC), muscle hypertrophy, blood flow restriction (BFR), resistance training		
Web page	https://scholar.google.co.jp/citations?user=8JwZqCIAAAAJ&hl=ja		
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Research Domain	Biomechanics (Master's Program, Doctoral Program)	Supervisor's Name	Toshimasa Yanai
Research Topics	Sports biomechanics, Motion analysis, Injury mechanics	Degree	Ph.D., University of Iowa
Description	This course offers research guidance on biomechanics analysis of sports techniques and performance analytics of selected sports, aiming to help performers improve their techniques and minimize the risk of injuries. In biomechanics analysis, we measure various forces, such as ground reaction force, impact force, fluid force etc., to understand the physical load applied to athlete's body and capture the linear and angular motions of the body to describe the skills of sports performances. In performance analytics, we use various information technologies for gathering and analyzing big-data on baseball and golf to provide objective, valid and reliable observations of the performances. Using the outcome of these analyses and the laws of physics, we evaluate adequacy of the technique for each athlete, identify factors limiting their performance, find biomechanical risk of athletic injuries, and provide the athlete with specific guidelines to overcome the shortcomings.		
Keywords	kinematics, kinetics, musculoskeletal injury, Newton mechanics, videography		
Web page	http://researchers.waseda.jp/profile/en.ca21c8ec285c59a4a979d480589253e7.html		
E-mail	tyanai■waseda.jp (Please change the "■"to "@"when sending an e-mail)		

Research Domain	Exercise Physiology (Doctoral Program)	Supervisor's Name	Naoyuki Hayashi
Research Topics	Exercise Physiology, Applied Physiology	Degree	PhD in Medicine, Osaka University
Description	Based on physiological research, the teaching focuses on circulatory responses and the roles of sensory information on circulation. Student will conduct experimental research on the circulatory response to exercise itself and sport-supportive procedures (diet, massage, etc.) and its regulatory mechanisms through measurements of the circulatory system in human subjects. Students are mainly guided from the designing their own research questions and conducting research for the writing of their thesis. In addition, students will be guided to be able to make presentations at conferences and publish papers.		
Keywords	peripheral circulation, ocular blood flow, cerebral blood flow, sensory information, vision, massage		
Web page	http://researchers.waseda.jp/profile/en.ca21c8ec285c59a4a979d480589253e7.html		
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5. Sport Coaching Research Area

Research Domain	Coaching of Budo: Japanese Martial Arts (Doctoral Program)	Supervisor's Name	Misaki Iteya
Research Topics	Sports science and Coaching	Degree	Ph.D., Tsukuba University
Description	In the martial arts, including Judo, have inherited the traditional practice, however recently is executed the physical, skill, and tactics training to improve competition ability. Interestingly, a person can use the opponent's power in martial arts. In addition, there are particular body movements or manipulations, which do not use in other sports and daily activities. We study to measure the specific physical strength and analyze skill movement, thereby clarifying the efficiency of skills in top athletes. Research topics are: 1. Measurement the particular power during technique 2. Clarification of the mechanism of skills in experts 3. Development of the coaching method.		
Keywords			
Web page			
E-mail	iteya■waseda.jp (Please change the "■"to "@"when sending an e-mail)		