

Academic Year 2024 Waseda University

Graduate School of Sport Sciences

Description of Research Themes and List of Subject Codes

The following is information as of April 7th, 2023.

<Points to note>

- 1 **Contact your prospective supervisor, discuss your research interest and have your research proposal approved. Make an initial contact with the prospective supervisor by sending an e-mail to supoken-eng@list.waseda.jp, if could not find the mail address.**

<attention>

We would response only the message related with initial contact. Regarding of the question about admission, by sending an e-mail to supoken-eng@list.waseda.jp.

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

- 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 research guidance code in the application form without mistake by referring to the following pages.

<Reference: Waseda University Web Syllabus System (search page)>

<https://www.wsl.waseda.jp/syllabus/JAA101.php?pLng=en>

<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
	EB1	Active and Healthy Aging	Associate Professor	Michael Annear
Health and Exercise Science 2	EN5	Biodynamics	Professor	Yasuo Kawakami
	EN7	Sport Psychology	Professor	Hiroaki Masaki
	EN6	Sport physiology & Neuroscience	Professor	Yudai Takarada
	EN3	Biomechanics	Professor	Toshimasa Yanai
	EB2	Applied Health Science	Associate Professor	Daisuke Sugimoto
Sport Management	EN8	Sport Marketing	Professor	Hiroataka Matsuoka
	EB0	Sport & Entertainment Management	Associate Professor	Shintaro Sato
	EB3	Sport and Social Issues	Associate Professor	Wong Donna

<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
	M45	Sports and Body Culture in Asia	Professor	Ko Takashima
	M40	Sport and Social Issues	Associate Professor	Wong Donna
Sport Business	N30	Sport Organization	Professor	Seiichi Sakuno
	N26	Sport Marketing	Professor	Hiroataka Matsuoka
	N36	Sport & Entertainment Management	Associate Professor	Shintaro Sato
Sports Medicine	P00	Exercise Immunology	Professor	Takao Akama
	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
	P62	Applied Health Science	Associate Professor	Daisuke Sugimoto
Exercise Science	Q05	Biodynamics	Professor	Yasuo Kawakami
	Q30	Sport Psychology	Professor	Hiroaki Masaki
	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 2024 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, Annear

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
EB1	Active and Healthy Aging	Associate Professor	Michael Annear

Health and Exercise Science 2

By Kawakami, Masaki, Takarada, Yanai, Sugimoto

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
EN7	Sport Psychology	Professor	Hiroaki Masaki
EN6	Sport physiology & Neuroscience	Professor	Yudai Takarada
EN3	Biomechanics	Professor	Toshimasa Yanai
EB2	Applied Health Science	Associate Professor	Daisuke Sugimoto

- **Sport Management**

Sport Management (Directed Research M) A/B

By Matsuoka, Sato, Wong

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	Associate Professor	Shintaro Sato
EB3	Sport and Social Issues	Associate Professor	Wong Donna

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	kawashimakohei■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		

2. Sport Business Research Area

Research Domain	Sport Organization (Doctoral Program)	Supervisor's Name	Seiichi Sakuno
Research Topics	management for physical education and sport, sport organization	Degree	Ph.D., Kanazawa University
Description	<p>The relationship between people and sports is not limited to “to play” and “to watch” but is wide-ranging including “to support” and “to read.” In addition, these relationships often involve some sort of organizations. In this research guidance course, we deepen the understanding of organizations as a framework for grasping and explaining diverse physical education and sport and carry out research on organizational management methods based on this. Furthermore, we aim to acquire basic knowledge as well as research and analysis methods (quantitative and qualitative) for driving forward research based on each student’s interest. Research themes include leadership, motivation, organization, and human resource management in management of various sports organizations and we grasp them primarily from the perspective of micro- to meso-level organizational theory. In addition, the course also offers guidance on a wide range of themes including volunteer management and collaboration between school sports and community sports (see the website for details).</p>		
Keywords	sport organization, community sports, sport club, human resource management, management for physical education		
Web page	http://www.f.waseda.jp/sakuno/		
E-mail	sakuno■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

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 and Social Issues (Master's Program, Doctoral Program)	Supervisor's Name	Wong, Donna
Research Topics	Sports Events Management, Sport and New Media, Sport Governance and Policy	Degree	PhD (Sport Studies), University of Edinburgh
Description	My research interests focus on sports events management and contemporary issues relating to sport in the global society, which broadly include impacts and legacies of sports mega events, mediated and digital sports, governance of sports organisations and policies in the international sports arena. I am particularly familiar with sport development in both Europe and Asia. More recently, my activities have been expanded to include studies on esports and its global development. I am interested to understand the how sport is employed in the digital age to promote sport participation and engagement with young people. I welcome proposals that examine the role of sport in society and sport culture, sport mega event legacies, mediated sport and esports.		
Keywords	Sport Mega Event Legacies, Social Issues in Sport, Sport and New Media, Esports		
Web page	https://w-rdb.waseda.jp/html/100001973_en.html		
E-mail	donnawong■aoni.waseda.jp (Please change the “■” to “@” when sending an e-mail)		

3. Sport Medicine Research Area

Research Domain	Exercise Immunology (Doctoral Program)	Supervisor's Name	Takao Akama
Research Topics	sports immunology, sports medicine, anti-doping	Degree	Ph.D. in medical science, Tsukuba University
Description	We study changes in immune functions caused by exercises and their applications. We consider the mechanism of the changes in immune functions caused by exercises and verify that moderate exercises enhance immune functions. Our research themes include (1) exercise prescription for enhancing immune functions of elderly people whose immune functions have decreased due to ageing, (2) measurement of changes in athletes' immune functions due to training and its application in athletes' conditioning, and (3) investigation of mechanism of immune function suppression following exercises and study how to prevent the suppression. Moreover, anti-doping is covered as our research theme.		
Keywords	immunity, conditioning, anti-doping		
Web page	http://www.f.waseda.jp/takao-akama/top.html		
E-mail	takao-akama■waseda.jp (Please change the “■”to “@”when sending an e-mail)		

Research Domain	Health and Behavioral Science Research Guidance (Doctoral Program)	Supervisor's Name	Koichiro Oka
Research Topics	health and behavioral science; behavioral epidemiology	Degree	doctor (human sciences), Waseda University
Description	<p>The course offers guidance for research on lifestyle change, especially, promoting physical activities/exercises and reducing sedentary behaviors in various setting (worksite, 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.</p>		
Keywords	<p>behavior modification, nudge, health communication, sedentary behavior, 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</p>		
Web page	http://www.f.waseda.jp/koka/index.html		
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	Degree	Ph.D., University of Tokyo
Description	The Evidence Based Research in Athletic Training course introduces the research process in athletic training with an emphasis on evidence-based practice. This course will focus on research associated with prevention and reconditioning of common athletic injuries. Additionally, the course will explore strength and conditioning research. Ongoing projects include treatment of skeletal muscle and myofascial injuries, role of neuromuscular control in lower extremity injuries, conditioning strategy in hot environment and development of effective fitness training for soccer players. The course will involve a multidisciplinary approach, incorporating scientific (research) and practical application based on clinical studies.		
Keywords	athletic training, prevention of sports injuries, conditioning, football (soccer)		
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	<p>Study on the mechanism of muscle plasticity by mechanical stress.</p> <p>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.</p> <p>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.</p>		
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 Physiology (Master's Program)	Supervisor's Name	Masashi Miyashita
Research Topics	Exercise Metabolism, Exercise Physiology, Exercise Nutrition, Applied Health Science	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) and carbohydrate (glucose) metabolism after meals in humans. More recently my activities have expanded to include work on physical activity and appetite regulation, physical activity and atherogenic lipids/inflammatory markers, nutrition and exercise performance, and recovery science in humans. I also have an established network with my domestic and international collaborators for conducting cutting-edge research on physical activity and health.		
Keywords	postprandial metabolism, appetite regulation, exercise performance, public health		
Web page	http://www.f.waseda.jp/m.miyashita/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			
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	<p>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.</p>		
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	Degree	M.D., Ph.D. in medical science, Tokyo Medical and Dental University
Description	<p>“Sleep” is one third of our lifetime, which means sleep is essential for human health. Physical activity such as sports or exercise plays a key role for regulating human sleep. The course demonstrates basic scientific knowledge on human sleep and circadian rhythm, closely associating with mental health <i>vice versa</i>. Based on the fundamental knowledge, the course aims to develop sleep science to performance enhancement and mental health for athletes. Specific research themes include (1) effect of physical exercise on sleep and circadian rhythm (2) optimization of duration and timing of sleep for elite athletes to enhance performance (3) investigation of human sleep by electrophysiological apparatus (electroencephalography) as well as recently developing wearable device (actigraphy). Moreover, sleep disorders and mental health issues commonly observed among athletes are covered as a research theme.</p>		
Keywords	sleep, circadian rhythm, wearable device, electroencephalography, sleep disorder		
Web page	http://www.waseda.jp/prj-nishida/		
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	<p>Sports epidemiology provides scientific evidence to society to solve the issues of preventive medicine, public health, and several sports fields.</p> <ul style="list-style-type: none"> For master program, doctoral program [first half] <p>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.</p> <p>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.</p> <ul style="list-style-type: none"> For doctoral program [second half] <p>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.</p> <p>Through these processes, we will support the building of the ability to solve the problem in preventive medicine, public health, and several sports fields.</p>		
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	<p>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.</p>		
Keywords	physiology, epidemiology, training, adaptation, physical fitness, microbiota, lifestyle, diet		
Web page			
E-mail	miyachim■waseda.jp (Please change the “■” to “@”when sending an e-mail)		

Research Domain	Applied Health Science (Master's program)	Supervisor's Name	Daisuke Sugimoto
Research Topics	athletic training, rehabilitation, sports medicine	Degree	PhD University of Kentucky, USA, Post-doctoral, Boston Children's Hospital, USA
Description	My job is to help you identify an appropriate line of research in applied health science field, especially among children and adolescent populations in area of sports medicine. I will help you to learn what has been done based on documented literature and develop a logical research question. Then, I can help you to find a feasible research method to answer the research question. Precisely, I can be your help if you are interested in following areas: 1) assessment of exercise and performance data, 2) comparison of athletic injuries (example, children vs. adolescents, and/or female vs. male), 3) investigation of injury mechanism (how certain injury happens), 4) identification of risk factor(s) (factors that lead to particular injury), 5) development of a preventive intervention (a method to reduce specific injury), and 6) implementation and adherence of preventive initiative. I hope you will learn valuable lessons in this process.		
Keywords	injury prevention, risk factors, pediatrics, children, adolescents, females		
Web page			
E-mail	dai.sugimoto■aoni.waseda.jp (Please change the “■” to “@” when sending an e-mail)		

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	<p>The course carries out in-vivo measurement of the morphological and functional features of the human body and musculoskeletal system as the source of various movements. For that purpose we carry out research on non-invasive visualization and quantification of anatomical and functional attributes of humans and contracting skeletal muscles by using image analysis such as ultrasound 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 measurements of cadaver specimens. Muscle-tendon-fascia interactions are quantified to search for the factors in the performance of physical activities and sports. Acute as well as chronic changes in the human body due to training, physical inactivity, growth, aging and fatigue are also in the scope of our research. Research projects under the following themes are in progress: 1) evaluation of joint performance and injury mechanisms through musculotendinous mechanics, 2) individual variability and adaptability of musculotendinous and fascial characteristics, 3) body dimensional and musculoskeletal growth, and exercise performance development in children, 4) health promotion of the elderly through exercise, and 5) exercise performance enhancement through the development of outfit and footwear. Our websites and Instagram provide the latest information.</p>		
Keywords	muscle fibers, tendinous tissue, fascial structure, ultrasound, MRI, biomedical signal & image analysis, biometrics, human performance, growth, aging, athletic performance, individual differences, sex difference		
Web page	https://sites.google.com/view/waseda-biodynamics-lab-eng/ https://www.waseda.jp/prj-hpl/eng/ (Linkedin: Human Performance Laboratory)		
Instagram	https://www.instagram.com/kawakami_lab_waseda/		
Linkedin	https://www.linkedin.com/in/yasuo-kawakami-61b286232/		
E-mail	ykawa■waseda.jp (Please change the “■” to “@” when sending an e-mail)		

Research Domain	Sport Psychology (Master's Program, Doctoral Program)	Supervisor's Name	Hiroaki Masaki
Research Topics	sport psychology, exercise psychology, cognitive neuroscience, psychophysiology	Degree	Doctor (human sciences), Waseda University
Description	The aim of this research supervision is to clarify the cognitive and affective functions associated with sport behaviors by applying psychophysiological methodology (e.g., electroencephalogram, event-related potentials, functional MRI, and eye tracking measurements). The underlying mechanisms of motor learning, choking under pressure during a big game, the beneficial effect of exercise on cognitive functions, and performance monitoring are investigated. For example, when an ongoing movement deviates from the aimed (desired) movement, our brain detects the error and corrects it. We refer to this as performance monitoring. We can investigate these processes by recording event-related potentials.		
Keywords	electroencephalogram, event-related potentials (ERPs), fMRI, eye tracker, motor learning, performance monitoring		
Web page	http://www.waseda.jp/sem-masaki/		
E-mail	masaki■waseda.jp (Please change the “■” to “@”when sending an e-mail)		

Research Domain	Sport physiology & Neuroscience (Master's Program, Doctoral Program)	Supervisor's Name	Yudai Takarada
Research Topics	Physiology, Neuroscience (Motor control, Motor cortex, Motivation)	Degree	Doctor (Multidisciplinary Sciences), University of Tokyo
Description	<p>1) It has been established that force levels of maximal voluntary contraction, in which a person believes their effort to be maximal, fluctuate constantly. Indeed, the maximal voluntary force has been found to be increased by various manipulations such as the sound of a gunshot, hypnotic suggestion, shouting, verbal encouragement, and motivational goal-priming. We search for a reason behind fluctuating maximal voluntary force. 2) Low-intensity resistance exercise combined with vascular occlusion ("KAATU") enhances endocrine response and motor system state, the training of which induces a marked muscular hypertrophy and concomitant increase in strength, even if the exercise load is much lower than that expected to induce muscular hypertrophy. We investigate the acute and long-term effects of the occlusive exercise on physiological and neuroscience-related variables, muscular function, and sport performance. 3) We try to develop a new training method on the basis of scientific findings obtained by the above 1) and 2). [Techniques: electrical measurements, pupillometry, Transcranial magnetic stimulation (TMS), (f)MRI]</p>		
Keywords	Neuroscience, Motor control, Motor cortex, Motivation, Resistance training, Vascular occlusion, Maximal volitional force		
Web page	https://scholar.google.co.jp/citations?user=8JwZqCIAAAAJ&hl=ja		
E-mail	takarada■waseda.jp (Please change the "■" to "@" when sending an e-mail)		

Research Domain	Biomechanics (Master's Program, Doctoral Program)	Supervisor's Name	Toshimasa Yanai
Research Topics	Human Physiology (Exercise), Neuroscience (Motor control & Motivation)	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		
E-mail	naohayashi■waseda.jp (Please change the "■" to "@" when sending an e-mail)		

Research Domain	Active and Healthy Aging (Master's Program)	Supervisor's Name	Michael Annear
Research Topics	Active and healthy aging, physical activity epidemiology, environmental/urban health.	Degree	PhD in Medicine, University of Otago, New Zealand.
Description	<p>Dr Annear is available to support and supervise graduate students with an interest in human life course issues (e.g. population aging, transitions to retirement, and longevity promotion). Dr Annear's particular expertise is in the areas of physical activity research and urban health as related to middle-aged and older adults. Students who are interested in these areas may be concerned with the following questions:</p> <ul style="list-style-type: none"> •How do urban environmental conditions support or constrain physical activity behaviors among different age groups? •How do health interventions or major sports events affect population physical activity over short or long time periods? •How do environmental, social, or cultural elements of Japan contribute to experiences of active and healthy aging relative to other countries or cohorts? <p>Dr Annear can support thesis students who plan to research and publish in English in the following ways: 1) Expertise across both quantitative and qualitative research methods and designs (including mixed method approaches), 2) Familiarity and teaching experience with advanced statistics and scale design and validation, 3) Significant experience of international publication in high-impact English-language journals, 4) International networks and research collaborations, which can provide students with a global context for their work. Please contact me via email if you have any questions (annear@aoni.waseda.jp).</p>		
Keywords	Population aging, environmental health, physical activity interventions, mixed methods, Social Ecological Model of health, preventive medicine, pragmatic research.		
Web page	https://www.michaelannear.com/ https://www.waseda.jp/healthpromotion/members/197/		
E-mail	annear■aoni.waseda.jp (Please change the “■” to “@” when sending an e-mail)		

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	<p>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:</p> <ol style="list-style-type: none"> 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)		