

List of Major Subjects and Academic Advisors for 2024 Academic Year

*The major subjects and academic advisors may change as needed.

1) Field of Nursing

Department of Nursing

Course Title	Course Aims and Research Subject
Graduate Thesis of Health Care Integrated Sciences SUGAMA Junko MURAYAMA Ryoko TAKEHARA Kimie	<p>In the special research, students conduct research on the construction of evidence in nursing and its social implementation and prepare a doctoral dissertation. In the process, students learn a series of dissertation writing processes, including selection of a research theme, review of previous research, planning of a research plan, experimentation and investigation, and discussion. In addition, students learn the conscience and ethics as scientists, their attitude toward research, original ideas, and the nature of research through the preparation of their doctoral dissertations.</p> <p>The major research topics are as follows:</p> <p><i>SUGAMA Junko</i></p> <ol style="list-style-type: none"> 1. Research on the establishment of evidence for the prevention and management of chronic wounds, skin injuries, and geriatric syndromes, and its social implementation 2. Research on the development of evidence and its implementation for nursing interventions and clinical skills 3. Research on the evaluation of nursing role and function in the interdisciplinary approach to the health care <p><i>MURAYAMA Ryoko</i></p> <ol style="list-style-type: none"> 1. Research on the creation of evidence-based nursing technology and the construction of systems for social implementation 2. Research on the development of educational programs including the development of teaching materials and human resource development for the dissemination of nursing technology and its social implementation <p><i>TAKEHARA Kimie</i></p> <ol style="list-style-type: none"> 1. Research on the development and social implementation of diabetic foot ulcer preventive care and assessment technology using nursing science and engineering methods 2. Research on a series or part of the process to create of advanced new nursing care by the clinical seeds and its social implementation (i.e., its widespread return to clinical field) 3. Research on the working environment and education of nurses, and patient education

2)Field of Rehabilitation Sciences

Department of Rehabilitation Therapy Sciences

Course Title	Course Aims and Research Subject
Graduate Thesis of Rehabilitation Therapy Sciences KANADA Yoshikiyo SAKURAI Hiroaki TERANISHI Toshio YAMADA Kouji INAMOTO Yoko ONOGI Keiko TANABE Shigeo TAKEDA Kotaro	<p>In this seminar, students will conduct research related to rehabilitation, the science of helping recover the activities. In research on physical therapist education, we will examine educational methods for training medical staff who can contribute to team medical care and have high teaching ability. This study also includes topics on the adequacy of clinical education and clinical training using Objective Structured Clinical Examination (OSCE) in physical therapists. This study also includes the topic of practical training in training instructors. Also, a new educational system that strengthens cooperation between university teachers and practical training instructors will be explained. Specifically, to standardize clinical skills, clinical skills will be practiced through simulated patients with stroke and osteoarticular systems. In research on motor systems, we will research motor control, motor learning, and rehabilitation engineering. Specifically, we will conduct basic research in simulated patients and clinical research in patients on postural control during movement, therapeutic learning, rehabilitation robots, etc. Through advice for the thesis, the students will have the skills to present their findings at academic conferences and academic journals in their specialized fields and disseminate information to society.</p> <p><i>KANADA Yoshikiyo</i></p> <p>We will conduct research on therapist education from the perspective of evidence-based medicine (EBM). In addition, research will be conducted on society, urban development, and community health. Specific research themes are listed below.</p> <ol style="list-style-type: none"> 1. Research on therapist education and treatment techniques 2. Research on clinical practice guidance for therapists 3. Research on student education, novice physical therapist education, and patient education 4. Research on contribution to the community by therapists <p><i>SAKURAI Hiroaki</i></p> <p>We will conduct research on the training of therapist educators with high technical skills, leadership skills, and teaching skills. Specific research themes are listed below.</p> <ol style="list-style-type: none"> 1. Research on the objective evaluation of therapist skills 2. Research on training of practical training supervisors 3. Research on cooperative educational systems between training schools and training facilities 4. Research on standardization of treatment techniques for physical and occupational therapists 5. Research on continuing education for postgraduate therapists

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<p data-bbox="183 293 391 412">Graduate Thesis of Rehabilitation Therapy Sciences</p> <p data-bbox="172 465 399 801">KANADA Yoshikiyo SAKURAI Hiroaki TERANISHI Toshio YAMADA Kouji INAMOTO Yoko ONOGI Keiko TANABE Shigeo TAKEDA Kotaro</p>	<p data-bbox="419 248 635 275"><i>TERANISHI Toshio</i></p> <p data-bbox="443 282 1412 555">With the advancement of medical specialization and differentiation, problems that cannot be solved without the cooperation of professionals are occurring. In this special research, a doctoral thesis will be created using keywords such as activity, intervention, and behavior change. In the course, students will learn a series of a doctoral thesis writing processes, such as selecting a research theme, reviewing previous research, drafting a research plan, experimenting, and considering. In addition, through writing a doctoral thesis, students will learn how to conduct research, including the conscience of scientists, attitudes toward research, and creative ideas. Themes are summarized in the following four.</p> <ol data-bbox="443 562 1197 696" style="list-style-type: none"> 1. Research on posture and movement of patients and healthcare workers. 2. Research on quantitative measurement of spasticity 3. Research on fall prevention, fall risk evaluation and patient management. 4. Research on time study and consequences of rehabilitation intervention. <p data-bbox="419 730 590 757"><i>YAMADA Kouji</i></p> <p data-bbox="443 763 1428 1070">Based on gross and histological knowledge and theory of skeletal muscle, bone, ligaments, tendons, and joints, based on morphological and structural observations regarding problems that occur in the rehabilitation treatment process in clinical practice, judgment of prognosis, etc. Research on the functional analysis that does not stay in range, and create a doctoral dissertation. Further, the present invention is similarly carried out in the biological control field of neural control and humoral control. In this process, students learn the attitude toward research as a scientist through a series of doctoral dissertation creation processes, such as devising research themes, clarifying the progress of prior research, drafting research plans, conducting experiments, and studying.</p> <ol data-bbox="443 1077 1412 1245" style="list-style-type: none"> 1. Research from a preventive medical point of view applied to humans from basic research using disease model animals. 2. Structural analysis methods such as bone morphometry and biochemical analysis of humoral factors. 3. Research on biological control mechanism by humoral factors represented by myokines. <p data-bbox="419 1279 598 1305"><i>INAMOTO Yoko</i></p> <p data-bbox="443 1312 1428 1559">This course will conduct a research related to swallowing and dysphagia rehabilitation. Research goal is to elucidate the physiology of swallowing, to characterize the factors underlying dysphagia, and to elaborate the swallowing exercise using kinematic and/or kinetic analysis, such as videofluoroscopy, swallowing CT, and high resolution manometry. Specific research interests include the mechanism of airway protection during swallowing, mechanism of UES opening/relaxation, kinetic effect of swallowing maneuvers, tongue and pharyngeal strengthening exercise, and intensive dysphagia treatment.</p> <p data-bbox="443 1565 598 1592">Focused areas:</p> <ol data-bbox="443 1599 981 1693" style="list-style-type: none"> 1. Studies on the physiology of swallowing 2. Studies of the pathophysiology of dysphagia 3. Studies on the swallowing exercise and maneuvers

Course Title	Course Aims and Research Subject
<p data-bbox="183 286 391 405">Graduate Thesis of Rehabilitation Therapy Sciences</p> <p data-bbox="172 465 399 797">KANADA Yoshikiyo SAKURAI Hiroaki TERANISHI Toshio YAMADA Kouji INAMOTO Yoko ONOGI Keiko TANABE Shigeo TAKEDA Kotaro</p>	<p data-bbox="419 241 571 271"><i>ONOGI Keiko</i></p> <p data-bbox="448 280 1417 481">The seamless medical cooperation from the acute stage to the chronic stage is needed in the aging society. In this course, a doctoral dissertation will be created using the key words ‘geriatric medicine’. Students will master writing processes of articles such as consideration of research theme, review of previous research, drafting a research plan, experiment, and discussion. And students will learn the conscience of scientists, the attitude toward research, the original ideas, and the way of research. Themes are grouped into the following three,</p> <ol data-bbox="448 490 1353 584" style="list-style-type: none"> 1. Research for deconditioning of elderly 2. Research for relationship of functional independence of patients and burden of caregivers 3. Research for dysphagia of patients with cognitive disorders <p data-bbox="419 622 600 651"><i>TANABE Shigeo</i></p> <p data-bbox="448 660 1417 745">We will conduct research related to rehabilitation therapy science, especially rehabilitation engineering. Rehabilitation engineering is research field to develop practical devices and methods based on clinical problems and requests. The following are specific themes.</p> <ol data-bbox="448 754 1166 817" style="list-style-type: none"> 1. Studies on the rehabilitation robots 2. Studies on the development of motion analysis and treatment methods <p data-bbox="419 875 600 904"><i>TAKEDA Kotaro</i></p> <p data-bbox="448 913 1394 1032">Based on instrumentation engineering, rehabilitation engineering, neuroscience, and cognitive science, the following studies on biomedical measurement, clinical evaluation, and intervention will be conducted.</p> <ol data-bbox="448 1041 1187 1207" style="list-style-type: none"> 1. Studies on the scalp electroencephalogram and surface electromyogram 2. Studies on the clinical evaluation and database 3. Studies on motion analysis 4. Studies on motor imagery