# 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 Adult and Gerontological Nursing

Course Title	Course Aims and Research Subject
	Graduate students write a master's thesis on nursing care for adults, elderly patients, and families
Graduate Thesis of	with chronic health problems by integrating with nursing practice.
Self-Care Nursing	They will explore various problems related to health promotion and self-care of chronic
	disabilities by utilizing the theories and nursing models learned in the seminar and exercises.
SUGAMA Junko	And they clarify their research topics related to nursing care for adults and the elderly, conduct
NAKAMURA Sayuri	nursing research, and prepare a master's thesis.
	SUGAMA Junko
	1. Study on health issue that arise in older adults with reduced self-care ability due to aging and
	disease
	2. Study on a care model using technology to support older adults who continue to live in their
	own community
	NAKAMURA Sayuri
	1. Study on support for diabetic patients in adulthood
	2. Study on prevention of lifestyle-related diseases
	3. Study on the development of communication skills
	4. Study on interprofessional collaboration in health care

#### Department of Mental Health and Community Health Nursing

Course Title	Course Aims and Research Subject
Graduate Thesis of Mental Health and Community Health Nursing	Students clarify research topics related to mental health and community health nursing, plan and implement research, and create a master's thesis. Through this process, Students will acquire basic abilities for the development of mental health and community health nursing practices. SEKO Rumi
SEKO Rumi MIYAMOTO Miho	<ol> <li>Annual changes in healthy life expectancy and evaluation of regional distribution</li> <li>Forecast of average independence period based on long-term care insurance</li> <li>Smoking status of women and their families based on anonymous data from the Basic Survey on National Life</li> </ol>
	<ul> <li>MIYAMOTO Miho</li> <li>1. Study on support to older adults and family members in the community</li> <li>2. Study on care prevention for older adults in the community</li> <li>3. Study on public health nurses working at community general support centers</li> </ul>

Department of Maternal and Pediatric Nursing

Course Title	Course Aims and Research Subject
Graduate Thesis of Maternal Nursing FUJIWARA Iku TASAKI Ayumi	<ul> <li>Maternal Nursing clarifies research subjects related to nursing of subjects from puberty to menopause and their families. Proactively and systematically work on research themes and prepare a master's thesis. In the process, develop the basic ability to contribute to the development of maternal nursing.</li> <li>In Child Health Nursing, students will clarify a research topic on nursing care of children and families at all levels of health, engage in independent research, and write a master's thesis. In the process, students will explore nursing care for children's growth and development and independence, nursing care that protects the best interests of children, and family nursing care that supports children, and develop the basic ability to create and change high-quality child health nursing care.</li> <li><i>FUJIWARA Iku</i> <ol> <li>Study on parental readiness and childcare in adolescence</li> <li>Study on menstruation in adolescence</li> <li>Study on support for acquisition of self-care and transitional support for children with chronic diseases</li> <li>Research on nursing support and coordination for children and families requiring renal replacement therapy in childhood</li> </ol> </li> </ul>

### Department of Basic and Integrated Nursing

Course Title	Course Aims and Research Subject
Graduate Thesis of Basic and Integrated Nursing	Students work on research projects related to nursing education, nursing administration, nursing science and engineering, and social implementation nursing, conduct research independently and systematically, and prepare a master's thesis. In the process, students develop basic skills to contribute the development of their respective fields of specialization. The major research topics are as follows:
MURAYAMA Ryoko TAKEHARA Kimie MINAGAWA Atsuko	<ul> <li>MURAYAMA Ryoko</li> <li>1. Research on the development of nursing technology based on nursing science and engineering, and social implementation of the developed technology</li> <li>2. Research on the development and dissemination of ultrasound visualization technology as the sixth physical assessment tool</li> </ul>
	<ul> <li><i>TAKEHARA Kimie</i> <ol> <li>Research on the development and social implementation of advanced skin care for diabetic foot ulcer prevention, insulin balls, etc. using nursing science and engineering methods</li> <li>Research on a series or part of the process from the creation of new nursing care by the seeds of clinical research to its widespread application for clinical field</li> <li>Research on the study of a seamless educational environment between basic nursing education and clinical practice</li> <li>Research on the working environment and education of nurses, and patient education</li> </ol></li></ul> <li><i>MINAGAWA Atsuko</i> <ul> <li>Research on educational methods to promote understanding of technical terms</li> <li>Research on educational methods using simulated patients</li> </ul> </li>

Department of Acute phase and Perioperative Period

Course Title	Course Aims and Research Subject
	From the perspective of a team approach in medical care, we study the problems regarding
Graduate Thesis of Acute	perioperative care, emergency care, disaster medical care, highly advanced medical treatment
and Perioperative Period	(robot surgery, transplant medical care, minimally invasive surgery, auxiliary artificial heart
	treatment, etc.), medical care security, medical care economy, training, and, based on knowledge,
HAVA SHI Mutsubaru	the technique that each obtained in seminar, practice, training, and making announcements. In
	addition, we learn about how diagnoses (including the symptom), treatment, nursing, and other
	factors affect a study widely.
UENISHI Norimichi,	During late term in the first grade, we learn pharmacodynamics, the clinicopathology associated
ITOU Masahiro	with the study, and a class associated with the clinical diagnosis.
FUNABIKI Tomohiro	Through group work and group discussion, develop the ability to find solutions to problems.

Course Title	Course Aims and Research Subject
Graduate Thesis of Recipient Coordination	This course deals with clarification of research issues related to transplant coordination and paper writing from a clinically based perspective. Students will achieve basic skills and ability as a transplant coordinator to develop concepts and theories through this process and clinical training.
ASAI Tomoko	<ul> <li>ASAI Tomoko <ol> <li>Research on decision-making support for patient and family choosing organ transplant</li> <li>Research on coordination at every stage of organ transplant</li> <li>Research on nursing interventions for self-care, adherence, patient education, and more</li> <li>Research on nursing interventions for living-donor transplant recipient</li> <li>Research on organ transplant such as allocation system or perception of medical professionals</li> </ol></li></ul>
Graduate Thesis of Donor Coordination	This course deals with clarification of research issues related to transplant coordination and paper writing from a clinically based perspective. Students will achieve basic skills and ability as a transplant coordinator to develop concepts and theories through this process and clinical training.
ASAI Tomoko	<ul> <li>ASAI Tomoko <ol> <li>Research on coordination of deceased organ/tissue donation</li> <li>Research on deceased donor family care</li> <li>Research on donation and allocation system</li> <li>Research on in-hospital organ/tissue donation system</li> <li>Research on organ transplant such as perception of medical professionals</li> </ol> </li> </ul>

## Department of Transplant Coordination

### 2) Field of Rehabilitation

## Department of Activity Sciences

Course Title	Course Aims and Research Subject
Graduate Thesis of	Clinically oriented research on physical therapy and occupational therapy for activity disorders will be conducted regardless of whether it is basic or clinical research.
Activity Sciences	In other words, physical and occupational therapy will be examined from the neurophysiological and neuropsychological aspects of conventional treatment methods based on kinesiology,
<b>TERANIASHI</b> Toshio	neuropsychology, electrophysiology, prosthetics and orthotics.
SUZUKI Megumi	In addition to physical and psychological factors, people should be understood together with the
OHTSUKA Kei	environmental factors surrounding them, and it is important that a comprehensive approach be taken to their activities.
	In the field of activity sciences, we will develop biometrics, treatment techniques, orthotics, and
	welfare support devices, and will discuss and decide on themes that can widely contribute to clinical medicine for future generations.
	While discussing with their supervisors as needed, students advance their research and present their
	indings at conferences and in academic papers, and write their master's thesis.
	TERANISHI Toshio
	1. Study on therapeutic intervention and consequences of physical therapy.
	2. Development of fall risk assessment tools and management method in hospital.
	3. Development of clinical-oriented motion analysis method.
	4. Study on treadmill gait analysis and motion analysis.
	5. Development of walking practice method.
	6. Study on orthosis treatment for paralytic disease.
	SUZUKI Megumi
	1. Research about subjective and objective QOL of persons with cognitive dysfunction
	2. Research about the evaluation and training of persons with cognitive dysfunction or dementia patients
	3. Research about social participation of persons with cognitive dysfunction
	OHTSUKA Kei
	1. Development and clinical application of clinical-oriented gait analysis system using a
	three-dimensional motion analysis system.
	2. Development and clinical application of clinical-oriented gait analysis system using wearable sensors.
	3. Studies on the gait analysis in stroke patients with hemiparesis.
	4. Development of the balance evaluation methods in stroke patients with hemiparesis.
	5. Studies on the gait analysis in patients with hip osteoarthritis.
	6. Quantitative analysis of knowledge of results in walking.
	6. Quantitative analysis of knowledge of results in walking.

### Department of Dysphasia Rehabilitation

Course Title	Course Aims and Research Subject
	In this course, to determine the theme of thesis, current findings and consensus in swallowing
Graduate Thesis of	function and dysphagia rehabilitation will be discussed based on the classes of dysphagia
Dysphasia Rehabilitation	therapeutics and graduate seminar of dysphagia therapeutic. The themes range from basic
	research (anatomy, physiology, kinetic analysis, etc.) to clinical research (training effects, outcome
INAMOTO Yoko	evaluation, etc.). Students will plan and conduct research while carefully reading and discussing
ONOGI Keiko	research papers on the selected theme up to that point. The results obtained will be summarized,
	analyzed, interpreted, and compiled into a master's thesis. Through this process, emphasis is
	placed on cultivating the ability to carry out research. The master's thesis will then be submitted to
	a major research journal.
	INAMOTO Yoko
	1. Kinematic analysis of swallowing maneuvers
	2. Analysis of the effect of tongue muscle strengthening on the swallowing kinematics
	3. Development of exercise for strengthening pharyngeal contraction during swallowing
	4. Kinematic analysis of hyolaryngeal movement during swallowing
	ONOGI Keiko
	1. Development of severity scale for oral phase of swallowing
	2. Investigation of swallowing outcome by dysphagia rehabilitation
	3. Invention of severity scale for VFSS and FEES

## Department of Rehabilitation Functional Morphology

Course Title	Course Aims and Research Subject
Graduate Thesis of Rehabilitation Functional Morphology YAMADA Kouji NISHII Kazuhiro	Explain the functional analysis not to remain in form and structure observation about problems, determination of prognosis occurring in a treatment process undergoing rehabilitation in a clinic based on bones, ligament, tendon, the articular knowledge and theory that macroscopic, are histologic including muscle. It is macroscopic as a method of analysis and wears a histological observation method and, using immunohistochemistry, biochemical and molecular analytical technique, makes clear that it is in the form of tissue, cells of the locomotor system about a function. Also, we perform it in the neurologic analysis similarly. In addition, we explain neuropsychological methods to understand motor control. We clarify a research theme of each person and give an explanation that we make the substantial master's thesis that demonstrated the supposition about the tissue of various locomotor systems, many problems about cells.
	<ul> <li><i>YAMADA Kouji</i></li> <li>1. We wear an immunohistologic method, genetic technique, a biochemical technique, and understand bones, a muscular physiologic mechanism and lecture by the process of study, utilization of the literature, the evaluation method of results.</li> <li>2. Of the bone morphometric enforcement and parameter calculate it, and understand a way of the histologic bone analysis, and determine it.</li> <li>3. We learn knowledge and a technique to analyze the bones by the exercise test for the having many kinds and a muscular morphological change and a change of the onset of protein and deepen, and does a research theme of the self and determines it.</li> <li>4. Using model mice, we will analyze the effects of exercise on the central nervous system by behavioral analysis and brain tissue image analysis, and investigate the causes that cause them.</li> <li>5. To understand the motor control strategies in patients with motor impairments, we objectively measure body awareness involved in human motor control by using neuropsychological methods.</li> <li>6. To determine the neural basis of body-specific attention involved in human motor control by using electroencephalography (EEG).</li> <li>7. We explore ways to solve each clinical problem from a functional anatomical perspective by objectively measuring joint motion and muscle contraction.</li> </ul> <i>NISHII Kazuhiro</i> <ul> <li>1. We explain the experimental drafting method using the animal, a basic technique.</li> <li>2. We determine the distribution of the serotonin neuron in the spinal nerre using histologic technique.</li> <li>3. We understand a change of the locomotorium after the spinal cord injury in the model animal and we analyze it about a mechanism of the neurotization and determine it.</li></ul>

### Department of Rehabilitation Educational Sciences

Course Title	Course Aims and Research Subject
	The students research the knowledge, skills, and attitudes necessary for educating therapists
Graduate Thesis of	from the perspective of EBM (Evidence-Based Medicine) and pursue science.
Rehabilitation Educational	
Science	KANADA Yoshikiyo
	1. Studies on the prediction of the outcome of therapist education.
KANADA Yoshikiyo	2. Studies on the standardization of therapists' treatment techniques.
SAKURAI Hiroaki	3. Studies on the guidance of clinical training for therapists.
	SAKURAI Hiroaki
	<ol> <li>Development of clinical skills and OSCE (Objective Structured Clinical Examination) for physical and occupational therapists.</li> </ol>
	2. Studies on the development of methods to evaluate clinical skills in physical and occupational therapist education for students and novice therapists.
	3. Studies on the standardization of clinical techniques used by clinical practice leaders (physical and occupational therapists) to educate students and novice therapists
	(Development of clinical practice leadership training courses).
	4. Studies on the usefulness of OSCE (objective structured clinical examination), PBL (problem-based learning), and TBL (team-based learning) in physical and occupational therapist education for students and novice therapists.
	KOYAMA Soichiro
	1. Studies on the pre-graduate and continuing education for physical and occupational therapists
	2. Studies on feedback, motivation, attention, and memory to promote motor learning
	3. Studies on electrophysical agents in physical therapy (electricity, ultrasound, shock wave, vibration, etc.)
	4. Studies on the clinical utilization of robotics and ICT
	5. Studies on daily physical activity and exercise for physical and mental health
	6. Studies on the clinical application of medical data

#### Department of Rehabilitation Biomedical Engineering

Course Title	Course Aims and Research Subject
	The research theme will be a clinical-oriented one that addresses clinical questions and/or problems
Graduate Thesis of	identified from a survey of previous studies and will be determined through discussions with the faculty
Rehabilitation biomedical	members. The field of the research covers fundamental sciences (neurophysiology, neuroscience, and
engineering	cognitive science), clinical sciences (clinical evaluation, predicting prognosis, and intervention methods),
	and applied sciences (development of therapeutic instruments, evaluation apparatus, and welfare
TANABE Shigeo	devices). Students will be encouraged to give a presentation of their study at conferences and publish a
<b>TAKEDA Kotaro</b>	scientific paper in journals.
	TANABE Shigeo
	1. Studies on the development of activity assistive devices.
	2. Studies on the evaluation methods in sensory-motor system.
	3. Studies on the exercise methods in sensory-motor system.
	TAKEDA Kotaro
	1. Studies on the objective clinical evaluation.
	2. Studies on the predicting prognosis.
	3. Studies on the measurement and evaluation of brain and motor functions.
	4. Development of the measurement and intervention devices