



WAKAYAMA MEDICAL UNIVERSITY

School of Medicine

Graduate School of Medicine



## Principle

Comprising of School of Medicine and School of Health and Nursing Sciences, Wakayama Medical University covers areas ranged from basic and fundamental to comprehensive studies, and also provides a highly professional and well-rounded teaching and researching programs. Since focusing on training humanitarian health care leaders, we produce warm-hearted and ethics-oriented doctors and nurses through an inspirational and exemplary education. All of these elements bring great benefits to our community in Wakayama with the high quality of medical services and, thus, we can contribute to the cultural development and the better welfare system on health.

## Goal

School of Medicine seeks to bring the tomorrow's doctors who are broadly educated with a great stock of knowledge and who are also capable of developing a creative thinking and of being ethics-oriented too. At the same time, it also aims to improve the doctors' abilities in terms of a professional medical competency and a cooperation with communicative skills and leadership, which should be parallel to the commitment to the local health care and welfare, and, further, to playing an active role in the international medical society.



### The Emblem

The emblem features the flower of *Datura Metel*, called *Mandarage* in Japanese, from whose leaves *Seishu Hanaoka* succeeded in using of *Tsusensan* as a general anesthetic. The design was produced by the ceramist *Kenkichi Tomimoto* for the General Assembly of the Japanese Association of Medical Sciences: the Japan Medical congress in 1963. With the letter 医 (the meaning of which is medical science) added, the figure had been beloved as the symbol mark of the University and, thus, it was formally adopted as the University's emblem in 1987.



First President Dr. Yashirou Kotake



## Message from the President of Wakayama Medical University

President Yoshitaka Okamura

**“As celebrating 70 years since its foundation, being constantly forward-“**

Wakayama Medical University has marked its 70<sup>th</sup> anniversary of its establishment since 1945 when Wakayama Prefecture School of Medicine was founded. School of Medicine began with its first 40 students and had continually recruited around 60 students, which led to the Prefectural Authorized University. In the present, the entry has reached as many as 100 students each year and approximately 4000 numbers of our graduates have actively made their commitments at home and abroad. The current system of two faculties have been completed after School of Health and Nursing Science and the Program in Midwifery were combined.

We succeed to the philosophy derived from Dr. Seishu Hanaoka: one is 内外合一, or *Naigaigoitsu*, which means that ‘a surgery should be carried out with a full understanding of internal medicine’; and the other is 活物窮理, or *Katsubutsukyuri*, which means that ‘any symptom should be individually taken into consideration as one has its own body constitution’. Dr. Seishu Hanaoka is from Wakayama, who successfully performed a breast surgery under general anesthesia using the flower of *the Datura Metel* called *Mandarage* for the first time in the world history. Following his spirit our emblem features *the Datura Metel*.

The University Hospital has been regarded as one of main infrastructures in Wakayama, along with Emergency and Critical Care Medicine, and Maternal and Perinatal Care Center. Besides, the hospital has been also designated as the Designated Prefectural Cancer Care Hospital and Core Disaster Base Hospital.

Various diseases and symptoms have encouraged us to provide patients with high-quality of medical treatments and, especially, we have been highly ranked as one of top-ten university hospitals on ‘Japan Residency Matching Program’ connecting the six-year of pre-clinical and clinical courses and the two-year Foundation, all of which have been recognized as one of leading medical universities.

With respect to our international relations, since we cooperated with Shandong University in China for about 30 years, along with some medical universities in South East Asia and in East Europe, we have opened the new phase of international relations, which eventually conduce to the international contribution.

Since 1999 when we moved to the new campus called ‘Kimiidera’, an array of new facilities including Post Graduate Clinical Training Center, Advanced Medical Care Staff Development Center and Community Medical Support Center have opened. Especially, the emergency medical helicopter named *Doctor Helicopter* was first introduced among national medical universities and Oncology Center and Children’s Medical Center were also established in our hospital.

This year, we newly opened Clinical Study Support Center as being constantly forward-looking and we all have taken great efforts to become an exemplary medical university.



Message from the Dean of Wakayama Medical University School  
of Medicine

Dean Hiroki Yamaue

**"The sprits of learning medicine"**

First of all, understanding why you are going to learn medicine is the most important issue. Let's think it extensively. For what and whose sake on earth do you learn it? Do you usually think about the meaning of learning in a Medical University? What kind of doctor, medicine researcher do you want to be after you graduate the school? Wakayama Medical University demands a diligent student who has an aptitude and can think about these points deeply while studying at our university.

Our university traces its roots to the Medical Saint, Dr. Seishu Hanaoka. Seishu is famous for succeeding in a breast cancer operation under general anesthesia first time in the world in 1804. The medical school established by Seishu was called the "Shunrinken" and the basic concept of the school is "Katsubutsu-Kyuri". "Katsubutsu-Kyuri" means that the true essence and nature of living things, namely, patients can be understood by examining them thoroughly. For the doctor, "Katsubutsu" is a patient with the illness and "Kyuri" is to know a nature of the disease and cure by observing a patient well.

Our university has been developed in 1945. The first president of our university is Dr. Yashirou Kotake who is one of the leading scientists of biochemistry, especially the research of a tryptophan metabolism study.

In addition, President Kotake has given a message that begins with "You must read the book, but you have to work hard" to the students and researchers. In other words, he tells that working hard is to get close to the nature and staring at it. As mentioned above, I think the nature is a patient for a doctor and medical scientist. Prof. Kotake preach the students attitude just like Seishu and his teachings have been handed down to us until today.

Additionally, since the school's founding, we have set the first of the admission policy to cultivate a doctor and a medical researcher who has the inquiring mind of scientific research and can be successful internationally.

In other words, the young person aspiring to be medicine must have a strong inquiring mind of scientific research. Otherwise they can't follow a medical advance. You can cultivate the scientific inquisitive by thinking intensely about that you want to become what kind of doctor or medicine researcher.

The way of thinking called EBM, namely, Evidence-based medicine has been sent to the whole world from Europe and America, and medical care in conformity with the EBM is demanded. It is a requirement for the doctor to study a new medical study and provide good treatment. However I think it is not itself entirely sufficient to become a good doctor.

We hope the graduate of this school will be a doctor who can produce EBM by ourselves with the scientific inquisitive, not just learn EBM. It is very important to learn not only the clinical study but also the basic medicine such as anatomy and biochemistry. Therefore, our college is fully equipped with the MD-PhD course that a medical student enters the Doctoral degree course in graduate school medicine and can start a study. Our school is the most suitable environment for a student studying medicine hard as above.

Furthermore, young students and doctors learning medical sciences need well-rounded character with high ethical standards. What is the well-rounded character, high ethical standards? There are various interpretations. However, I think ethics for the doctor is to think patients having a disease as if it is own self. Therefore, the doctor is required a deep humanity and a high level of intellectual capacity. We regard it as important like medical professional training for culture education in this medical school.

As described above, our university demands students aiming at highly advanced medical technology, a medicine study with outlook on high ethic. Let's do our best together to realize this big dream.

## History

- 1945 Wakayama Prefecture School of Medicine accredited (four-year program, in the district of Misono)
- 1947 Wakayama Medical College Preparatory Course accredited (three-year program)
- 1948 Wakayama Medical College accredited (Medical College under the old system, four-year program)
- 1951 Wakayama Prefecture School of Medicine and Preparatory Course closed
- 1952 Wakayama Medical College accredited through educational reform (Medical College under the new system)
- 1955 Wakayama Medical College Pre-medical course accredited
- 1955 Wakayama Medical College under the new system opened (six-year program)
- 1958 Academic degrees authorized
- 1960 Wakayama Medical College Graduate School of Medicine accredited
- 1961 Wakayama Medical College under the old system abolished
- 1963 College Head Office and Department of Basic Medicine relocated (the district of Kyuban-cho)
- 1965 Pre-medical Course relocated (the district of Kii)
- 1995 Nursing college annexed (three-year program)
- 1998 Opening ceremony for Wakayama Medical College held (Kimiidera)
- 1999 Integrative relocation of Wakayama Medical College (Kimiidera)
- 2000 Change of the English name from Wakayama Medical College to Wakayama Medical University
- 2003 Emergency medical helicopter (called Doctor Heli) introduced
- 2004 School of Health and Nursing Sciences opened
- 2005 Master's course was initiated in Graduate School of Medicine
- 2005 Doctor's course of Graduate School of Medicine was reorganized
- 2006 Restructuration as Public University Corporation
- 2008 Graduate School of Health and Nursing Sciences Master's course and Graduate Program in Midwifery established
- 2013 Graduate School of Health and Nursing Sciences Doctor's course opened

# Enrollment

Undergraduate School	School of Medicine	100
Graduate School	Graduate School of Medicine	Master's Course
		Doctor's Course

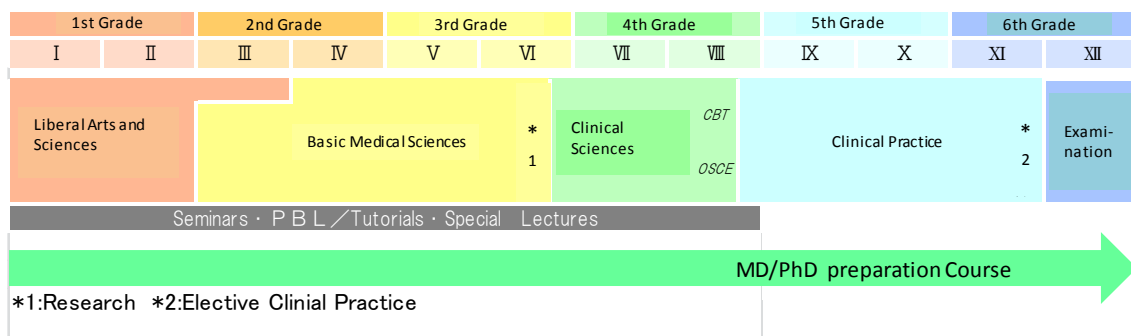
# Carriculum Outline

Wakayama Medical University School of Medicine has reformed its curriculum from the tradition curriculum that relied heavily on knowledge to the one that provides opportunities for a well-balanced acquisitions of knowledge, skills and attitude (ethics). One of the most recent changes in the curriculum was taken place in 2006, in which each field is more horizontally integrated according to the structures, functions and types of organs involved as opposed to being vertically integrated according to the areas of specialty, such as internal medicine and surgical medicine. This chance has enabled the University to produce more highly skilled doctors in both clinical and research fields.

Taking the levels of skill acquisition at the end of each year into consideration, critical materials are covered multiple times to ensure mastery of the materials in a step-by-step fashion. In our curriculum, students take mostly liberal arts and basic subjects in their first year; for example, natural science, pre-med, and ethics. In the second and third years, the emphasis shifts to basic medicine, which serves as the basis for clinical medicine. Two months of research experience in the assigned field is required for the students to become familiar with research methods. Students will learn basic clinical medicine and have the opportunity to practice their skills in their fourth year through the sixth years in the program. Throughout the curriculum, conventional lectures are used in combination with more practical problem-identification/solution-type education.

During the clinical training, students will have the opportunity to work with simulated patients and simulators to increase their practical skills at the Clinical Skills Training Center.

We understand the need for psychological care of the patients and of those in vulnerable situations. We also understand the need for social support systems. To prepare our students to be able to cater for these needs, we try to expose our students to a variety of on-site experiences through our curriculum: early clinical experience and visits to welfare facilities in the freshman year, visits to day-care through the fifth and sixth years are part of our curriculum. Role-playing on medical issues is intended to give our students a chance to solve real-life-like issued in preparation for solving real-life issues. Through three crucial experiences, we expect our students to become medical professionals with advanced levels of general and specialized skills and highly moralistic and ethical minds, so they can go out into the world and become contributing members of the global society.



### **Liberal Arts and Sciences**

Students at Wakayama Medical University take liberal arts subjects in the first semesters in their first and second years. The aim of the liberal arts education is to help our students broaden their knowledge base and acquire basic medical knowledge in preparation for studies in the selected fields afterward. At an early stage in the curriculum, students have the opportunity to gain clinical experience through a program called 'early exposure'. It is expected that this experience will heighten our students' interests in medicine and deepen their awareness of the issues in the medical fields they are going into.

### **Basic Medical Sciences**

Basic Medicine can be joined through their second and third years and is the starting point for medical science, and basic medicine and clinical medicine are two sides of the same coin. The study of basic medicine ranges from gross- and gene-anatomy, pathology and etiology of diseases. In the last two months of the curriculum, students will attend seminars of their choice in small groups, select a theme of their interests and conduct research in a lab.

### **Clinical Medical Sciences**

Students start taking classes in the clinical program in their fourth year, in which they learn ways to prevent, diagnose, and treat diseases and illnesses. Clinical training, conducted in small groups takes place in the fifth and sixth years. The training offers outside-the-textbook first-hand experience for the students to gain practical knowledge and skills, and also help them develop necessary attitude to be well-trained doctors. Lectures are divided into two categories: one is systematic lectures on diseases of each organ, and the other is more specific to each discipline, allowing for the students to gain comprehensive understanding of clinical medicine.

### **Institute of Advanced Medicine**

One of the most important functions of this institute is to conduct research on the forefront projects in medical and biological fields. Mouse genetic studies are the main stream of this institute. Among other roles are the education of medical and doctoral students and the training of post-doctoral researchers. All the researchers are actively involved in the medical education, especially Genetics, Molecular Biology, Developmental Medicine, and Immunology.

## School of Medicine

		Professors
Liberal Arts and Sciences	Physics	Seiji Makino
	Chemistry	Hideo Iwahashi
	Biology	Syu-ichi Hirai
	Mathematics and Statistics	Yoshifumi Takeda
	English	Akio Yabuuchi
	Laws and Politics	Hiroaki Ikeda
Basic Medical Sciences	Department of Anatomy - I	TBD
	Department of Anatomy - II	Yoshihiro Morikawa
	Department of Physiology - I	Yoshiki Kaneoke
	Department of Physiology - II	Masanobu Maeda
	Department of Biochemistry	Yoshito Ihara
	Department of Pharmacology	Shiroh Kishioka
	Department of Pathology	Yasuteru Muragaki
	Department of Microbiology	Machiko Nishio
	Department of Forensic Medicine	Toshikazu Kondo
	Department of Hygiene	Kazuhisa Miyashita
	Department of Public Health	Tatsuya Takeshita
Clinical Medical Sciences	Department of Internal Medicine - I	Takashi Akamizu
	Department of Internal Medicine - II	Masao Ichinose
	Department of Internal Medicine - III	Nobuyuki Yamamoto
	Department of Cardiovascular Medicine	Takashi Akasaka
	Department of Neurology	Hidefumi Ito
	Department of Nephrology	Takashi Shigematsu
	Department of Hematology	Takashi Sonoki
	Department of Rheumatology and Clinical Immunology	Takao Fujii
	Department of Neuropsychiatry	Kazuhiro Shinosaki
	Department of Pediatrics	TBD
	Department of Surgery - I	Yoshitaka Okamura



	Department of Surgery - II	Hiroki Yamaue
	Department of Neurological Surgery	Naoyuki Nakao
	Department of Orthopaedic Surgery	Munehito Yoshida
	Department of Urology	Isao Hara
	Department of Plastic and Reconstructive Surgery	Shinichi Asamura
	Department of Ophthalmology	Shizuya Saika
	Department of Otolaryngology	Noboru Yamanaka
	Department of Radiology	TBD
	Department of Obstetrics and Gynecology	Kazuhiko Ino
	Department of Dentistry and Oral and maxillofacial surgery	Shigeyuki Fujita
	Department of Dermatology	Fukumi Furukawa
	Department of Anesthesiology	Tomoyuki Kawamata
	Department of Laboratory Medicine	Takashi Akamizu
	Department of Rehabilitation Medicine	Fumihiro Tajima
	Department of Emergency and Intensive Care Medicine	Seiya Kato
	Department of Human Pathology	Shinichi Murata
Wakayama Medical University Kihoku Hospital	Department of Internal Medicine	Hideyuki Sasaki
	Department of Orthopaedic Surgery	Mamoru Kawakami
Institute of Advanced Medicine	Department of Molecular Medicine	Kazushige Sakaguchi
	Department of Developmental Genetics	Gen Yamada
	Department of Molecular Immunology	Tsuneyasu Kaisho
Center for Medical Education and Development	Center for Medical Education and Development	Takuzo Hano
Community Medical Support Center	Community Medical Support Center	Masami Ueno

# Graduate School of Medicine

## Master's Course

### Field of Medical Sciences

Divisions are the same as Doctor's course.

## Doctor's Course

### Field of Community and Comprehensive Medicine

Regions (Departments)	Divisions	Professors	Research Contents
Community Health Sciences	Environmental Health and Preventive Medicine	Kazuhisa Miyashita  Akio Yabuuchi  Hiroaki Ikeda	1 Study regarding combined effects of harmful chemical and physical working environment on workers 2 Surveys on the health effects of exposure to hand-arms vibration and the working conditions of vibration tool users 3 Longitudinal studies on the association between the growth of children and environmental factors 4 Assessment of blood pressure in response to exercises for the early detection of hypertension 5 Epidemiologic study regarding an association between maternal lifestyle during pregnancy and attention deficit/hyperactivity disorder 6 Early detection and control measures of potential depression in the workplace and the community
	Public Health	Tatsuya Takeshita  Yoshifumi Takeda	1 Analyses of genetic factors regulating health behavior and their effects on health biomarkers 2 Analyses of genetic and environmental factors associated with life-style related diseases and mathematical and statistical methods for this purpose 3 Dietary compounds: important role on cancer chemo-prevention/therapy 4 Cohort studies to explore life-course influences on health and development 5 Studies on lifestyle-related diseases of health care workers 6 Studies on nutrition intake and health in the community 7 Epidemiological studies on cardiovascular risk factors
	Regional medicine management study	Masami Ueno	1 Reseach on the patient consultation behavior in regional medicine 2 Factor analysis and solution about the doctor maldistribution 3 Reseach of integrated service of medical treatment welfare in region 4 Reseach of the medical risk management in community health
Comprehensive Medicine	Radiology	TBD  (Physics in	TBA

	Liberal Arts and Sciences) Seiji Makino	
Clinical Laboratory Medicine	Takashi Akamizu	
Psychiatry	Kazuhiro Shinosaki	<ol style="list-style-type: none"> <li>1 Studies of repetitive transcranial magnetic stimulation (rTMS) therapy for major depression</li> <li>2 Structural and functional neuroimaging studies of mood disorders</li> <li>3 Epidemiological and neuroimaging studies for prevention of suicide</li> <li>4 Neurophysiological studies of schizophrenia</li> <li>5 Neuroimaging and neurophysiological studies of dementia</li> </ol>
Rehabilitation Medicine	Fumihiro Tajima	<ol style="list-style-type: none"> <li>1 Exercise physiology and sports medicine in able bodied persons and persons with disability.</li> <li>2 Cardiovascular, renal and endocrine responses during exercise, head-up tilt and other stress in persons with disabilities,</li> <li>3 Disorders of auto-nervous system in persons with disabilities, Studies of muscle and skin sympathetic nerve activities in persons with spinal cord injuries or stroke.</li> <li>4 Clinical studies of physical therapy and occupation therapy</li> <li>5 Enviromental physiology</li> <li>6 Neuropathology of aphasia.</li> <li>7 Research of higher brain function.</li> <li>8 Research of balneology</li> <li>9 The effect of rehabilitation after nerve regeneration surgery in a patient with complete spinal cord injury</li> <li>10 Neural mechanisms of cardiovascular responses during physical stimulation</li> </ol>
Anesthesiology	Tomoyuki Kawamata	<ol style="list-style-type: none"> <li>1 Mechanisms of anesthesia</li> <li>2 Perception of somatic sensation including pain</li> <li>3 Functional changes of vascular smooth muscle to perioperative stress</li> <li>4 Perioperative circulation physiology</li> <li>5 Perioperative neurophysiology</li> </ol>
Emergency and Critical Care Medicine	Seiya Kato	<ol style="list-style-type: none"> <li>1 Pathophysiological study of the acute respiratory failure</li> <li>2 Socio-medical system research for emergency prehospital care</li> <li>3 Intensive care monitoring for the neurological emergency</li> <li>4 Studies of epidemiology and clinical character about acute intoxication</li> <li>5 Research for the education of emergency procedures</li> </ol>
General Internal Medicine	Hideyuki Sasaki	<ol style="list-style-type: none"> <li>1 Studies on hypertension and arteriosclerosis <ul style="list-style-type: none"> <li>• Development of new diagnostic methods of early arteriosclerosis using pulse wave analyzer.</li> <li>• Evaluation of the effect of autonomic dysfunction on hypertension and arteriosclerosis.</li> </ul> </li> <li>2 Studies on diabetes <ul style="list-style-type: none"> <li>• Epidemiological study on the development of diabetic polyneuropathy.</li> <li>• Development of early diagnostic method of small fiber diabetic neuropathy including autonomic neuropathy.</li> </ul> </li> <li>3 Clinical studies of liver disease</li> <li>4 Clinical studies of respiratory disease</li> </ol>

	General Surgery		
	Forensic Medicine and Science	Toshikazu Kondo	<ol style="list-style-type: none"> <li>1 The development of microscopic wound examination systems</li> <li>2 Forensic study on wound age determination</li> <li>3 Pathophysiological study on cytokines in skin wound healing</li> <li>4 Pathophysiological study on cytokines in drug-induced organ injury</li> <li>5 Cell biological study on shock</li> </ol>
	Medical education and population-based medicine	Takuzo Hano	<ol style="list-style-type: none"> <li>1 Research for medical education</li> <li>2 Clinical skills education</li> <li>3 Clinical and educational research for population-based medicine</li> <li>4 Studies on prevention and treatment for life-style related disease</li> </ol>
Reproductive and Developmental Medicine	Reproductive Medicine	Kazuhiko Ino	<ol style="list-style-type: none"> <li>1 Development of novel therapeutic strategies for gynecologic cancers</li> <li>2 New molecular targeted therapies for gynecologic cancers</li> <li>3 Studies on the reproductive and tumor immurology</li> <li>4 Research on placental trophoblasts</li> <li>5 Studies on pregnancy-induced hypertension and fetal growth restriction</li> </ol>
	Reproductive Health		
	Pediatrics	TBD	TBA
	Child Health care		
Palliative Medicine	Palliative care Medicine	Tomoyuki Kawamata	<ol style="list-style-type: none"> <li>1 Research on the management of physical symptom.</li> <li>2 Assessment methodology of spiritual pain.</li> <li>3 Research on participation of educational institution in home hospice spread.</li> <li>4 Research on side effects of opioids.</li> </ol>

## Field of Structural and Functional Biomedical Sciences

Regions (Departments)	Divisions	Professors	Research Contents
Physiological Sciences	Anatomy and Cell Biology	TBD	TBA
	Anatomy and Neurobiology	Yoshihiro Morikawa	<ol style="list-style-type: none"> <li>1. Research on pathological mechanisms of neuropsychiatric disorders: autism spectrum disorders and other neurodevelopmental disorders, and post-traumatic stress disorders</li> <li>2. Research on obesity and related metabolic diseases (type 2 diabetes and hepatic steatosis): pathophysiology and therapeutic approaches</li> <li>3. Research on molecular mechanisms for the regulation of feeding behavior in the hypothalamus</li> <li>4. Research on the development of novel therapeutic strategies for atopic dermatitis</li> <li>5. Research on molecular mechanisms of signal transduction in sensory systems</li> </ol>
	System Neurophysiology	Yoshiki Kaneoke	<ol style="list-style-type: none"> <li>1 Brain rhythm and functional connectivity as a basis of brain dysfunction</li> <li>2 Neural correlate of personality</li> <li>3 Neural mechanism underlying visual motion perception</li> <li>4 Sensory information processing in the loop connectivity between the cortex and thalamus</li> <li>5 Functional changes of descending pain modulatory system in chronic pain state</li> <li>6 Mechanisms of stress-induced hyperalgesia</li> </ol>
	Integrative and Molecular Physiology	Masanobu Maeda	<ol style="list-style-type: none"> <li>1 Central control mechanisms of circulation: effects of microinjection of new peptides into the brain on blood pressure, heart rate and local blood flow.</li> <li>2 Changes of the body function when the protein is transduced into the brain or the heart in vivo.</li> <li>3 Circadian rhythm and obesity.</li> </ol>
	Pharmacology	Shiroh Kishioka	<ol style="list-style-type: none"> <li>1 Intrinsic system of pain modulation</li> <li>2 Pharmacokinetic and pharmacodynamic studies on the development of tolerance to and dependence on opioid analgesics</li> <li>3 Cross talk between opioidergic system and nicotinic system</li> <li>4 Molecular mechanisms of neuropathic pain</li> </ol>
Cellular and Molecular Medicine	Metabolic Biochemistry	Yoshito Ihara	<ol style="list-style-type: none"> <li>1 Glycobiology of protein mannosylation</li> <li>2 Molecular chaperones in health and disease</li> <li>3 Redox regulation of proteins and the cell biological significance</li> </ol>
	Molecular Cell Biology	Kazushige Sakaguchi	<ol style="list-style-type: none"> <li>1 Molecular biological studies on the signal transduction of growth factors</li> <li>2 Molecular and cellular studies on the neural stem cell proliferation and differentiation</li> <li>3 Molecular studies on body growth</li> <li>4 Molecular studies on bone and cartilage metabolism</li> </ol>
	Developmental Genetics	Gen Yamada	<ol style="list-style-type: none"> <li>1 Molecular mechanisms of organogenesis: conditional mutant mouse series studies</li> <li>2 Molecular mechanisms of sex differentiation</li> <li>3 Growth factor signaling and organogenesis</li> <li>4 Similar and divergent mechanisms of organogenesis and cancer formation, regulation of cell proliferation</li> <li>5 Mechanisms of reproductive organ formation, prostate, uterus formation and its implication for pathogenesis</li> </ol>
	Molecular	Tsuneyasu	<ol style="list-style-type: none"> <li>1 Mechanisms for immune homeostasis and its disorder</li> </ol>

Immunology	Kaisho	<ul style="list-style-type: none"> <li>2 Mechanisms for immune adjuvant activities</li> <li>3 Molecular and cellular mechanisms for various inflammatory diseases</li> </ul>
Analytical Biochemistry	Hideo Iwahashi	<p>The main theme of our research is the application of modern analytical methods to solve problems concerning structures and reactions of the biological molecules systems.</p> <p>Major research interests include</p> <ul style="list-style-type: none"> <li>1 development of the hyphenated techniques in chromatography such as HPLC-ESR and HPLC-ESR-MS in order to solve problems concerning structures and reactions of the biological molecule-derived radicals</li> <li>2 inhibitory effects of naturally occurring antioxidants on the formation of the biomolecule-derived radicals</li> <li>3 interaction between biological molecules</li> </ul>
Medical Microbiology	Machiko Nishio	<ul style="list-style-type: none"> <li>1 Research on the function of paramyxovirus accessory proteins.</li> <li>2 Research on the interaction between viral proteins and host cellular proteins.</li> <li>3 Biological determinants in virus infected cells to control the fate.</li> </ul>
Molecular Neuroscience	Syu-ichi Hirai	<ul style="list-style-type: none"> <li>1 Functional studies on the stress-activated signaling pathway regulating neuronal differentiation in central nervous system</li> <li>2 Identification of molecular systems inducing axon regeneration in central nervous system</li> <li>3 Analysis of signal transduction networks regulating the development of epithelial/neural tissues</li> </ul>

## Field of Organo- therapeutics and Pathology

Regions (Departments)	Divisions	Professors	Research Contents
Internal Medicine	Diabetology, Metabolism and Endocrinology	Takashi Akamizu	<ol style="list-style-type: none"> <li>1 Molecular biology and genetics on endocrinology <ul style="list-style-type: none"> <li>• Research on the susceptible gene of autoimmune thyroid disease</li> <li>• Research on the pharmacogenetics of Basedow's disease</li> <li>• Research on the pathogenesis of thyroid crisis</li> </ul> </li> <li>2 Translational research on the ghrelin</li> <li>3 Molecular biology and genetics on diabetes mellitus <ul style="list-style-type: none"> <li>• Research on the susceptible gene of diabetes mellitus</li> <li>• Research on the diabetic neuropathy and nephropathy</li> <li>• Research on the diabetic macroangiopathies</li> </ul> </li> </ol>
	Gastroenterology	Masao Ichinose	<ol style="list-style-type: none"> <li>1 Research on the mechanisms of control underlying apoptosis and the proliferation, differentiation and morphogenesis of gastrointestinal epithelial tissue</li> <li>2 Research to clarify and clinically apply the molecular mechanisms of proliferation, differentiation and metastasis of gastroenterological cancer</li> <li>3 Clinical epidemiological research to understand the natural history and basic pathology of chronic and malignant gastroenterological diseases and their regulation</li> <li>4 Research to improve the accuracy and efficiency of gastroenterological cancer screening</li> <li>5 Research on multidisciplinary therapy for malignant gastroenterological diseases</li> </ol>
	Respiratory Medicine	Nobuyuki Yamamoto	<ol style="list-style-type: none"> <li>1 Research for the pathogenesis and new therapy of chronic obstructive pulmonary disease(COPD)</li> <li>2 Development of specific athma treatment</li> <li>3 Establishment of non-invasive monitoring of inflammatory lung disease</li> <li>4 Development of new standard chemotherapy regimens for thoracic malignant disease</li> <li>5 Investigation of new biomarkers as therapeutic target for thoracic malignant disease</li> </ol>
	Cardiovascular Medicine	Takashi Akasaka	<ol style="list-style-type: none"> <li>1 Assessment of pathophysiology of microcirculation inpairment in ischemic reperfusion injury and its treatment</li> <li>2 Identification of vulnerable plaque with intravascular imaging technique</li> <li>3 Assessment of ischemic mitral regurgitation by non-invasive diagnostic methods</li> <li>4 Effect of bone marrow-derived endothelial progenitor cells on cardiac ischemia and atherosclerosis</li> <li>5 Evaluation of real-time nitric oxide release in coronary artery by NO catheter</li> </ol>
	Neurology	Hidefumi Ito	<ol style="list-style-type: none"> <li>1 Molecular neuropathological research on neurodegenerative disorders</li> <li>2 Investigation for pathomechanism of neurodegenerative disorders using iPS cells and autopsied human material</li> <li>3 Elucidation of degenerative processes of motor neurons and innovation of novel therapeutic approach for ALS</li> <li>4 Research on neuroprotection and regeneration of nigral cells in Parkinson's disease and related disorders</li> <li>5 Research on pathomechanism and novel treatments of inclusion body myositis</li> </ol>

	Nephrology and Blood Purification Medicine	Takashi Shigematsu	<ol style="list-style-type: none"> <li>1 The study of relationship between kidney damage and clothe gene as an inhibitory factor.</li> <li>2 The study of mechanism of harmful effect of phosphate on cardiovascular system.</li> <li>3 The search work of phosphate sensor in mammals.</li> <li>4 The study of pathophysiology and therapeutic modality in vascular calcification.</li> <li>5 The study of technology development of next generation blood purification method with completely automation system.</li> <li>6 The examination of affecting factors on red blood cell size in renal anemia.</li> <li>7 The study of aggressive LDL-C suppressing therapy on peripheral arterial disease in CKD patients.</li> <li>8 Multicenter study in START(Study Group for Assessing Initiation of Renal Replacement Therapy)</li> <li>9 Clinical study of Rapidly Progressive Glomerular Nephritis as the Systemic Vasculitis.</li> <li>10 The investigation of mechanism in regulation system in skeletal FGF-23 synthesis.</li> </ol>
	Hematology and Oncology	Takashi Sonoki	<ol style="list-style-type: none"> <li>1 Molecular analyses of 8q24 breakpoints seen in double-hit lymphoma</li> <li>2 Oncogenic pathways of Epstein-Barr virus infected lymphocytes</li> <li>3 Gene expression profiling of sera after allogeneic hematopoietic stem cell transplantation</li> <li>4 The role of NKG2D mediated immunity in allogeneic hematopoietic stem cell transplantation</li> </ol>
	Rheumatology and Clinical Immunology	Takao Fujii	<ol style="list-style-type: none"> <li>1. Clinical significance of autoantibodies in systemic autoimmune diseases (e.g., rheumatoid arthritis)</li> <li>2. Direct and indirect pathogenic roles of anti-nuclear antibodies in neuropsychiatric systemic lupus erythematosus</li> <li>3. Immunogenicity of biological disease modifying anti-rheumatic drugs in patients with rheumatoid arthritis</li> </ol>
Surgery	Thoracic and Cardiovascular Surgery	Yoshitaka Okamura	<ol style="list-style-type: none"> <li>1 Surgical reconstruction of failing heart after myocardial infarction</li> <li>2 Assessment of coronary artery bypass graft by waveform analysis of transit-time flowmeter</li> <li>3 Chemosensitivity test in patients with breast cancer and lung cancer</li> <li>4 Investigation for organotropism of lung cancer metastasis</li> <li>5 Regeneration therapy in patients with chronic obstructive pulmonary disease</li> <li>6 Radiofrequency ablation therapy in patients with breast cancer</li> </ol>
	Gastroenterological Surgery	Hiroki Yamaue	<ol style="list-style-type: none"> <li>1 Development of therapeutic oncolytic viruses for gastric cancer stem-like cells</li> <li>2 Gene expression analysis for chemo-radiation sensitivity in rectal cancer</li> <li>3 Influence of protein methylation in Hepatocellular carcinoma</li> <li>4 The mechanism and relationship between adiponectin and carcinogenesis for pancreatic cancer</li> <li>5 Cancer immunotherapy using dendritic cells expressing tumor-associated antigen derived from induced pluripotent stem cells.</li> <li>6 The role of cell adhesion molecule in cancer invasion and metastasis</li> </ol>
	Neurological Surgery	Naoyuki Nakao	<ol style="list-style-type: none"> <li>1 Molecularly targeted therapy for brain tumor stem cells</li> <li>2 Molecular pharmacology of chemotherapy for treatment-refractory glioma</li> </ol>



			<ul style="list-style-type: none"> <li>3 Tailored made and molecularly targeted therapy for atypical and anaplastic meningiomas</li> <li>4 Endothelial progenitor cells in brain ischemia and endothelial injury</li> <li>5 Functional brain mapping and its application for neurosurgery</li> </ul>
	Orthopaedic Surgery	Munehito Yoshida	<ul style="list-style-type: none"> <li>1 Natural history and impact of surgical intervention in spinal disorders</li> <li>2 Technology for the minimally invasive (microendoscopic) spinal surgery</li> <li>3 Development of navigation system for minimally invasive spine study</li> <li>4 Development and clinical application of intraoperative spinal cord monitoring</li> <li>5 Electrophysiological technique to detect the clinically responsible lesion for spine and spinal cord diseases</li> <li>5 Analyses of the pathomechanisms of intraspinal algetic transmission using patch clamp methods</li> <li>6 The study of epidemiology on spinal disorders among local cohort</li> </ul>
	Spine Surgery and Related Research	Mamoru Kawakami	<ul style="list-style-type: none"> <li>1 Randomized controlled trial (RCT) and controlled clinical trial (CCT) to evaluate physical and psychological function in patients treated with surgical interventions.</li> <li>2 To develop new care and service programs to improve patients' disability utilizing evaluation of physical, social and psychological function in patients with spine and spinal cord disorders.</li> <li>3 To elucidate pathophysiological mechanisms and control or abolishment of pain secondary to disturbances of the spinal cord, the cauda equina and the nerve roots.</li> <li>4 To demonstrate physiological mechanisms of pain induced by degenerative discs. To make clear the mechanisms of pain control and regeneration of the degenerative intervertebral discs.</li> <li>5 Three dimensional motor analysis of the spine and the neural system in vivo.</li> </ul>
	Urology	Isao Hara	<ul style="list-style-type: none"> <li>1 Laparoscopic surgery for urogenital cancers</li> <li>2 Multidisciplinary approach for advanced testicular cancer</li> <li>3 Occurrence mechanism of urothelial cancer</li> <li>4 Prophylaxis of urinary tract stone</li> <li>5 Basic research for immunogene therapy for urogenital tumors</li> <li>6 Analysis of antitumor effect of BCG instillation therapy for bladder cancer</li> <li>7 Clinical study of neobladder replacement after total cystectomy</li> </ul>
	Plastic and Reconstructive Surgery	Shinichi Asamura	<ul style="list-style-type: none"> <li>1. Development of the minimally invasive surgery in the plastic surgery.</li> <li>2. Objective assessment after the blepharoptosis repair.</li> <li>3. The study on eyelids and orbital developmental mechanism.</li> <li>4. A clinical study of the arterio-venous malformation (a hemangioma) using the sclerotherapy</li> <li>5. Development of the regenerative therapy for the facial bones fracture</li> <li>6. The regenerative therapy for the intractable ulcer.</li> </ul>
Sensory Medicine	Ophthalmology	Shizuya Saika	<ul style="list-style-type: none"> <li>1 The research of After-cataract prevention</li> <li>2 Study for the cornea wound healing</li> <li>3 The study of the proliferation changes caused by a disease such as diabetes retinopathy, aging-related macular diseases, the retina vein obstruction</li> <li>4 A fundamental approach of the glaucoma therapy</li> </ul>

	Otorhinolaryngology- Head and Neck Surgery	Noboru Yamanaka	<ol style="list-style-type: none"> <li>1 Clinical application of Cochlear Implant</li> <li>2 Immunological approaches to intractable and recurrent otitis media and upper respiratory infections</li> <li>3 Molecular-biological researches on drug-resistant microbes.</li> <li>4 Development of new Drug-Delivery Systems for intractable infections.</li> <li>5 Development of peptide vaccine for allergic rhinitis</li> <li>6 Development of animal models and immunological study for tonsillar focal disorders</li> <li>7 Molecular-genetic approaches for the metastasis of head and neck cancer.</li> <li>8 Development and clinical application of peptide vaccines for head and neck cancers</li> </ol>
	Oral and Maxillofacial Surgery	Shigeyuki Fujita	<p>Clinical Research</p> <ol style="list-style-type: none"> <li>(1) Clinical and experimental research on temporomandibular disorder.</li> <li>(2) Clinical and experimental research on oral tumor.</li> <li>(3) Clinical research on oral and maxillofacial reconstruction.</li> <li>(4) Clinical research on oral and maxillo-facial trauma.</li> </ol> <p>Experimental Research</p> <ol style="list-style-type: none"> <li>1. TMD (Temporomandibular disorder) Study of the aetiology of internal derangement (ID) of temporomandibular joint using clinical specimens, cell lines and animal models: especially about involvements between hypoxia and ID. Study of the aetiology of synovial chondromatosis of temporomandibular joint using clinical specimens and cell lines: especially about mechanism of chondrogenesis in synovial membrane.</li> <li>2. Oral Cancer Study the Oral Squamous cell carcinoma (OSCC) malignancies and mechanism using clinical specimens and OSCC cell lines. Molecular and genetic analysis to tumor progression for oral cancer Molecular and genetic analysis of anticancer drug (CDDP) sensitivity and resistance for neo-adjuvant chemotherapy (NAC) in OSCC.</li> </ol>
	Dermatology	Fukumi Furukawa	<ol style="list-style-type: none"> <li>1 Studies on pathomechanisms of collagen diseases</li> <li>2 Pathological analyses in allergic diseases (such as atopic dermatitis, psoriasis)</li> <li>3 Skin Stress Response System and Chemical Peeling</li> <li>4 Autoinflammatory syndrome</li> <li>5 Regenerative medical approaches to the treatment of skin ulcers</li> </ol>
Pathology	Molecular Pathology	Yasuteru Muragaki	<ol style="list-style-type: none"> <li>1 Molecular mechanisms of wound healing and tissue fibrosis</li> <li>2 Expression and regulation of genes coding for extracellular matrices</li> <li>3 Gene mutations in congenital disorders of bone and cartilage</li> <li>4 Functional analysis of genes involved in skeletal morphogenesis</li> <li>5 TGF-<math>\beta</math> signaling in cancer initiation and progression</li> <li>6 Molecular mechanisms of vascular calcification</li> </ol>
	Human Pathology	Shinichi Murata	<ol style="list-style-type: none"> <li>1 Molecular analysis of cellular and structural atypia</li> <li>2 Chromosome structure of cells in interphase</li> <li>3 Quantitative histochemical and molecular analyses using fluorescence methodologies</li> <li>4 Pattern recognition analysis in diagnostic pathology</li> </ol>
Medical Oncology	Medical Oncology	Nobuyuki Yamamoto	<p>Planning and performing clinical studies for malignant tumor</p> <p>Development of support therapy for adverse events of cancer drug therapy</p> <p>Search and development of therapeutic target molecule for</p>

			malignant tumor Search for new biomarkers for malignant tumor Basic and clinical research on the mechanism of carcinogenesis by genomic mutation
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TBD=To be determined, TBA=To be announced

# Wakayama Medical University Hospital

## Hospital Philosophy

We provide a safe and high quality medical care and contribute to improvement of the local health care.

## Clinical departments

Diabetology, Metabolism and Endocrinology  
Gastroenterology  
Respiratory Medicine  
Cardiovascular Medicine  
Nephrology and Blood Purification Medicine  
Hematology  
Neurology  
Rheumatology and Clinical Immunology  
Pediatrics  
Neuropsychiatry

Thoracic and Cardiovascular Surgery  
Gastroenterological Surgery  
Neurological Surgery  
Orthopedic Surgery  
Urology  
Plastic and Reconstructive Surgery  
Obstetrics and Gynecology  
Ophthalmology  
Otorhinolaryngology  
Dermatology  
Oral and Maxillofacial Surgery  
Radiology  
Rehabilitation Medicine  
Emergency and Critical Care Medicine  
Anesthesiology  
Human Pathology

## Central Sections

Maternal and Perinatal Care Center  
Oncology Center  
Endoscopy  
Blood Purification Center  
Blood Transfusion  
Pharmacy

Clinical Laboratory Medicine  
Main Operation Theater  
Nutrition Care  
Medical Safety Promotion  
Infection Control  
Medical Information



### **“Helicopter Emergency Medical Service (HEMS) with flight doctor”**

Our hospital introduced Helicopter Emergency Medical Service (HEMS) in 2003. It has raised patient survival rate by nearly 30 percent compared to conventional emergency transportation by ground ambulance.



**"Da Vinci"**

Surgical support robot features a 3D high magnified vision system and special laparoscopic forceps with high degree of freedom, which allows surgeons to perform more sophisticated surgery comparing with traditional laparoscopic surgery.



**"TomoTherapy"**

The TomoTherapy System combines imaging with a radiation treatment system, enabling efficient daily 3D CT imaging to ensure the accuracy of the patient position. Another feature is it's sophisticated multi-leaf collimator, which enables the system to perform intensity-modulated radiation therapy (IMRT).



**"Hybrid Operating Room"**

The hybrid operating room is equipped with advanced medical imaging devices and enables minimally invasive therapy with both open and percutaneous procedures, including cardiovascular (e.g. transcatheter aortic valve replacement, endovascular aortic repair), neuro (e.g. intracranial aneurysm coiling, carotid artery stenting) and orthopedic interventions.

**Wakayama Medical University Kihoku Hospital**

**Clinical departments**

Internal Medicine  
Orthopedic Surgery  
Anesthesiology

Pediatrics  
Ophthalmology

Surgery

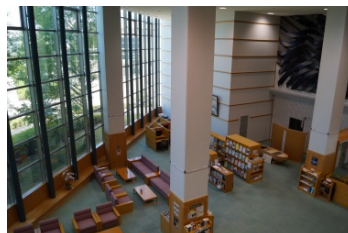
Neurosurgery  
Rehabilitation Medicine



# Facilities

## Library

The library in Kimiidera campus is located on the first and second floors of the library building, which is a modern glass curtain-wall style that represents the school. The library works on information technology and acts as a base of information. The latest medical information is provided through electronic journals so that the visitors will be satisfied.



## Center for International Relations

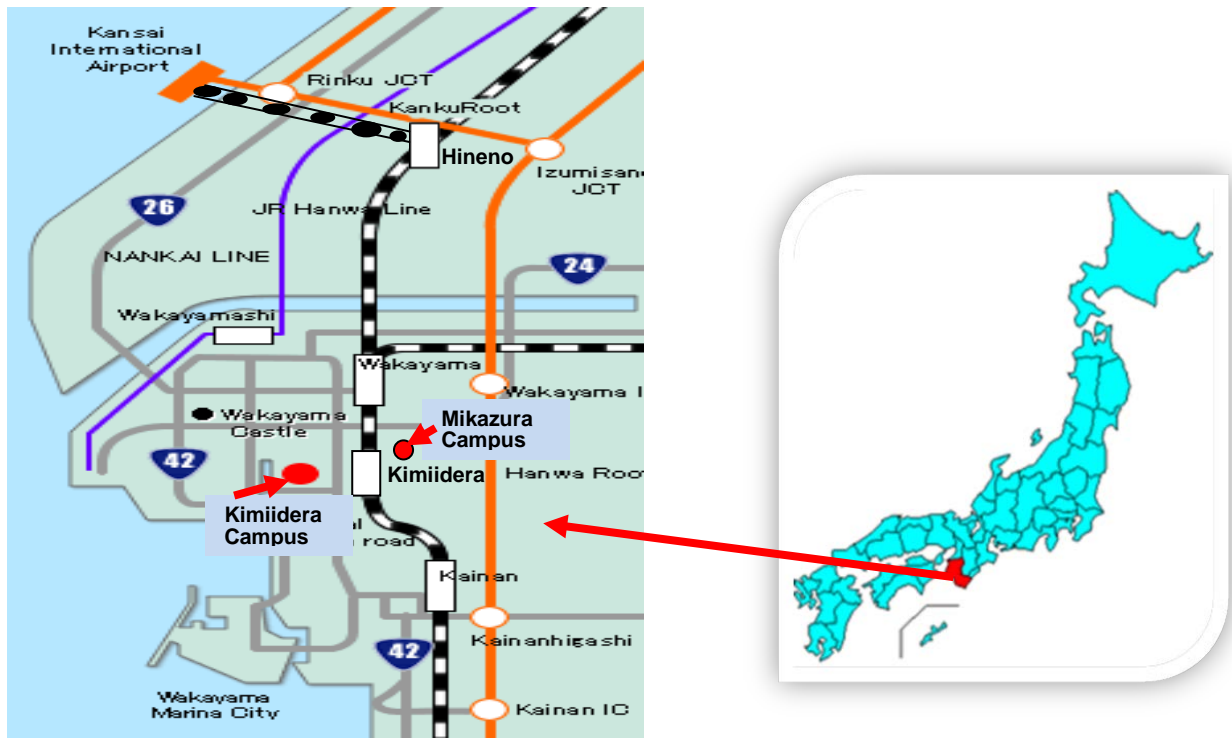
Wakayama Medical University has been actively organized an international exchange program in terms of education and research. Shandong University, China became the first university that set the MOU of study exchange program, and the first official case was accomplished in 2005 as School of Medicine sent four students and School of Health and Nursing Sciences, five students. Accordingly, the Center for International Relations was opened in 2006 in order to enhance the exchange program and, in fact, has been responsible for several cases, for examples, exchange students to Harvard University, USA; exchange activities in China and Thailand. Since we also encouraged more oversea students and researchers to join our university each year, our exchange program has been actively developed.

### Current Status of Exchange Agreements

Region	Country	Partner Institution	Date of Signature
Asia	People's Republic of China	Shandong University	1986. 5. 7
		Shanghai JiaoTong University Medical Center	2006. 7.15
		The Chinese University of Hong Kong	2007.10.15
	Thailand	Mahidol University	2006. 1.30
		Faculty of Public Health, Mahidol University	2008.10. 7
		Khon Kaen University Medical Center	2006.11.13
		Burapha University	2013. 6.24
The Republic of the Union of Myanmar	The department of Medical Science Ministry of Health	2014. 5.14	
Socialist Republic of Viet Nam	Ministry of Health	2015.2.12	
Europe	Czech Republic	Charles University Prague 2nd Faculty of Medicine	2013. 3. 4



## Access Map



## Kimiidera Campus map





Datura (flower featured to school emblem)

## Wakayama Medical University School of Medicine

811-1 Kimiidera, Wakayama City, 641-8509, Japan

Telephone +81-73-441-0800 (Office of Center for International Relations)

Fax +81-73-441-0822 (Office of Center for International Relations)

E-mail [kokusai@wakayama-med.ac.jp](mailto:kokusai@wakayama-med.ac.jp) (Office of Center for International Relations)

Home page: <http://www.wakayama-med.ac.jp/english/index.html>





# WAKAYAMA MEDICAL UNIVERSITY

School of Health and Nursing Science  
Graduate School of Health and Nursing Science  
Graduate Program in Midwifery



# WAKAYAMA MEDICAL UNIVERSITY

University that contributes to the development in the community and society



## ■ ■ Goals

Wakayama Medical University aims to contribute to local development efforts and the health and welfare of the people in the world by conducting researches both in basic and general areas of medicine and health and nursing science together with highly specialized areas, helping our students and staff become highly ethical-minded, humanistic, and skilled in medicine, and by meeting the expectations of the people in Wakayama prefecture for medical care.

## ■ ■ Principles

Our basic principles are as follows:

- to contribute to raising the standards of higher education and academic research
- to train students to acquire high-level, specialized, and comprehensive skills
- to provide best to environment for the students to learn
- to provide highly advanced medical treatment
- to contribute to the advancement of healthcare in the community
- to provide people in the community with the opportunities for life-long education
- to coordinate the efforts of the local community, industry, educational institutions, and government organizations
- to plan activities with the aim of enhancing the health and welfare of people



This emblem features a Flower of Thorn Apple, or *Datura metal* in Latin. It is called **Mandarage** or **Chosen asagao** in Japanese. Hanaoka Seishu (1760-1835), a Japanese surgeon with the knowledge of Chinese herbal medicine as well as Western surgical techniques, is said to have been the first in the world to perform surgery by using general anesthesia. He succeeded in making anesthesia from the leaves of this plant. The design of the emblem was produced by the ceramist Kenkichi Tomimoto for the General Medical Conference in 1963. With the letter 医, a Chinese character with the meaning of medicine, added to it afterward, the figure had been popular among many people as the symbol mark of the University. It was officially adopted as the University's emblem in 1987.



# HEALTH AND NURSING SCIENCE



Wakayama Medical University  
President

**Yoshitaka Okamura**

## Aiming at developing professional medical staff with high-quality

Wakayama Medical University, first established under the name of Wakayama Prefecture School of Medicine in 1945, will celebrate the 70th anniversary next year. We can trace the roots of our spirit of medicine to Hanaoka Seishu who succeeded in giving the world's first general anesthetic by making use of Datura metel.

The importance of nursing has increased due to specialization and sophistication of medicine and the aging of our society with unprecedented rapidity. That's why our university established a 3-year Nursing College, which developed into 4-year School of Nursing. Since then we have strived to enhance the education at Wakayama Medical University by establishing Master's and Doctor's Courses in Graduate School of Health and Nursing Science and Graduate Program in Midwifery.

At the base of our educational mission there lies cultivation of well-rounded character, together with development of human resources with a soaring sense of ethics. Talking about curricula there are some approaches specific to our university, for example, early exposure at a community in Wakayama Prefecture, comprehensive practices at schools and companies, hospital practicum with regional partnership, and so forth. Our university has implemented education programs, such as Care Mind Education, suitable for making students understand the importance of team medical care. Our students have clinical practices mainly at the University Hospital, which is foundation hospital in Wakayama Prefecture in all the fields including cancer care, emergency care, maternal and child care and so on.

Our university provides some overseas programs by reaching agreements of international exchange between universities in the USA, China, and South East Asia, so that our students can learn an international perspective. In addition, we established in 2014 Nursing Career Developing Center in partnership with Nursing Department at University Hospital in order to improve nurses' career in the future.

Under the circumstances of rapidly progressing medical world, our university always attempts to develop students' capacities as human beings that are important in medical services as well as knowledge and skills.



Health and Nursing Science  
Dean

**Mitsuru Shiba**

## For the purpose of cultivating great professional nurses

School of Health and Nursing Science, developed from Nursing College founded in 1996, was established in 2004 for the purpose of cultivating excellent human resources active in the field of health and nursing. Shortly thereafter our school established Master's Program of Graduate School, which now includes Certified Nurse Specialist (CNS) in Cancer nurse course, Doctoral Program of Graduate School, and Graduate Program in Midwifery. In a word our school has completed almost all the courses indispensable to topnotch universities with a nursing faculty. The aim of our school is to foster excellent human resources who will play an active role domestically and internationally as well as in Wakayama prefecture.

The population of elderly people above 65 years old is rapidly increasing in Japanese society in the near future, with the consequent result of leading to a high requirement for preservation of health, medicine and public welfare. They will be required not only in a hospital but also in care facilities, at home, and so forth. Amid a process of increasingly complex medicine and rapid change of social structure, what is needed in education is not only fostering nurses working in hospitals but also cultivation of human resources who can promote collaboration with workers at care facilities, workers from outside nursing, and people living in a community.

The area related to nursing and health care is so vast and wide ranging, containing prevention, diagnosis and cure of diseases, care, rehabilitation, and health promotion, that it is necessary to deep human knowledge in order to provide medical care which fits best and correctly according to the circumstances of the moment. In addition, a holistic perspective is required, in which human mind, body, and environment are understood as a whole. Taking full account of these, our school provides wide range of liberal arts subjects including statistics, psychology, and foreign languages as well as subjects related to medicine and science of nursing and health.

The staffs hope that the students who will play an important role in various medical scenes in the near future acquire English proficiency suitable to the age of globalization, information processing capacity with IT skills, and good lifestyle for themselves, as well as knowledge and skills related to nursing and health science during university days.

## History

Since the origin of Wakayama Medical University was founded in 1945, it has never ceased development. Our university has two schools: School of Medicine and School of Health and Nursing Science. Both schools have been contributing to the health of inhabitants of Wakayama prefecture as the sole prestigious medical university in the district. The following shows a brief history of the expansion of School of Health and Nursing Science.



1945 February	Wakayama Prefecture School of Medicine (four-year program) accredited
1955 April	Wakayama Medical University (six-year program) opened
1996 April	Nursing College (three-year program) opened
2004 April	School of Health and Nursing Science (four-year program) opened
2007 March	Nursing College closed
2008 April	Master's Program of Graduate School of Health and Nursing Science (two-year program) and Graduate Program in Midwifery (one-year program) opened
2013 April	Doctoral Program of Graduate School of Health and Nursing Science (three-year program) opened
2014 April	Certified Nurse Specialist (CNS) in Cancer Nursing Course in Graduate School of Health and Nursing School (three-year program) opened

## Organizations

School of Health and Nursing Science, Wakayama Medical University, has three organizations for education and research. They include not only undergraduate program but also postgraduate programs: Graduate Program in Midwifery and Graduate School of Health and Nursing Science. The latter contains Master's Program, CNS in Cancer Nursing Course, and Doctoral Program.

		Years of education	Quota
School of Health and Nursing Science (for undergraduate students)		4	80
Graduate School of Health and Nursing Science	Master's Program	2	12
	CNS in Cancer Nursing Course	3	
	Doctoral Program	3	3
Graduate Program in Midwifery		1	10



## School of Health and Nursing Science (for undergraduate students)

### ■ Educational Philosophy

School of Health and Nursing Science fosters a rich humanity and a lofty, ideal sense of ethics and teaches highly-advanced professional knowledge and skills. It also cultivates well-qualified human resources responding to social needs related to health and welfare with a flexible, creative attitude and promising and active in a wide range of fields from practice to education and research.

### ■ Goals of Education

The School of Health and Nursing Science has defined the following five academic goals for its students.

#### ● Cultivation of a rich sense of humanity and a high regard for ethical standards on the basis of dignity of man's life and a wide range of culture.

We hope not only to teach our students basic knowledge and skills but to instill in our students love and compassion for people, despite to promote health and happiness of others, and a sense of humanity.

#### ● Development of human resources with affluent cooperativeness, who can work in a team setting in cooperation with various related professions.

We also expect our students to be able to have a broad perspective that encompasses health, medicine, and welfare – not just of their specialized fields – and work cooperatively with people in various related fields, coordinate the efforts of those involved, and manage people and projects effectively for the good of all involved.

#### ● Development of excellent communication skills with respects for the individual, total understanding of others, and establishment of trusting relationships.

We expect our students to learn to value relationships with people in the community. Through personnel relationships, we believe that our students can deepen their understanding of the people in the society in general and gather valuable first-hand information, which they can use to base their critical decisions on.

#### ● Fostering the power of execution and creativity, based on scientific thinking and highly specialized knowledge.

With medicine becoming increasingly more sophisticated and specialized, we want our students to sharpen their perceptions, develop good decision-making skills, and learn to apply their knowledge to practical use to keep pace with rapid medical advances.

#### ● Fostering human resources who will enlighten themselves life-long and meet a variety of needs in the society.

Another goal we have for our students is to become self-directed, independent life-long learners who will be able to flexibly respond to the ever-changing needs of the society.



## ■ Features of Curriculum

The curriculum of our school consists of three fields: the field of Liberal Arts, basic field of Health and Nursing Science, and specialized field of Health and Nursing Science. Students can learn in an interdisciplinary and integrated way beyond the frame of specialization.



### **Wide range of liberal arts courses and basic education**

Nursing and healthcare professionals need to be able to understand people as whole persons and possess certain personal qualities such as kindness and consideration for others. Classes in the liberal arts and humanity areas are offered to help students turn into individuals who have an insatiable appetite for learning and are ethical and considerate. These courses are also designed for the students to develop superior communication skills. Students can choose from a wide range of electives, depending on their interests.

### **The area fundamental to health and nursing science**

Classes are designed to deepen students' understanding of people and equip them with the skills necessary to take on a role as health professional. In the area of health and nursing science, the following courses are offered: "Humans and Bioethics," "Health and Welfare," and "Health and Pathological Conditions," which cover the theoretical aspects of health and nursing science; and "Fundamental Nursing Science," which covers more practical aspects of the course. Together, they will help our students build the foundation for their studies in health and nursing science.

### **Education that fosters problem-solving, reasoning, and researching abilities**

Our course combine lectures, hands-on projects, lab, and small group work to promote experimental, self-discovery type learning with the view to sharpen students' perception and foster their ability to reason and solve problems, so they can truly understand people and handle any situation flexibly and effectively.

### **Comprehensive learning of health cares, medicine, and welfare**

The area of health, healthcare, and welfare are integrated to nurture a holistic view of people's lives. Some courses include visits to hospitals, health service centers, home visiting care agencies, maternity hospitals, day-care centers, elementary and junior high schools, business organizations, and nursery homes to give students opportunities to learn through real-life experiences.





## Subjects Offered

Fields	Freshman	Sophomore	Junior	Senior
Liberal Arts	<ul style="list-style-type: none"> <li>Science of Exercise</li> <li>English I</li> <li>Informatics Practice</li> <li>Liberal Arts Seminars</li> </ul>	<ul style="list-style-type: none"> <li>English II</li> </ul>		<ul style="list-style-type: none"> <li>Medical Care Communication</li> </ul>
	<ul style="list-style-type: none"> <li>Science of Human Mind* · Human and Ethics* · Literature* · People and Culture*</li> <li>Family Issues Today* · Life Science and Health* · Economics* · Nation, Society, and Law*</li> <li>Physics for Nursing* · Biology for Nursing* · Life and Genetics* · Food Science* · Food Science Seminar*</li> <li>Science of Physical Exercise*</li> <li>Health, Sports* · English Conversation* · English Reading* · Chinese* · Information Science* · Sensitivity of Art*</li> <li>Introduction to Medicine: Care Mind Education*</li> </ul>			
Basic Fields of Health and Nursing Science	<ul style="list-style-type: none"> <li>Developmental Psychology*</li> <li>Health Science</li> <li>Human Anatomy and Physiology</li> <li>Fundamental Pathology</li> <li>Introduction to Health and Nursing Science</li> <li>Nursing Activity</li> <li>Understanding of Human Beings and Nursing</li> <li>Nursing Skills I (Assisting Daily Life)</li> <li>Health Assessment</li> </ul>	<ul style="list-style-type: none"> <li>Human Relationship</li> <li>Bioethics</li> <li>Statistics of Health Science</li> <li>Public Health</li> <li>Occupational Safety and Health</li> <li>Environmental Health Science*</li> <li>Introduction to Social Welfare</li> <li>Social Welfare Activity</li> <li>Rehabilitation</li> <li>Pathology in Chronic Stage I</li> <li>Pathology in Acute Stage</li> <li>Mental Health Science</li> <li>Pathology in Chronic Stage II (Children)</li> <li>Emergency Medical Care* (including Disaster Medical Care)</li> <li>Fundamental Pharmacology</li> <li>Exercise and Health*</li> <li>Nursing Skills II (Nursing process)</li> <li>Nursing Skills III (Medical Skills)</li> <li>Pathological Nutrition*</li> </ul>	<ul style="list-style-type: none"> <li>Epidemiology</li> <li>Integrated Pathology</li> <li>End-of-life Medicine</li> <li>Health Education*</li> <li>Clinical Pharmacology*</li> <li>Nursing Skills IV* (Healing and Nursing)</li> </ul>	<ul style="list-style-type: none"> <li>Health Administration</li> <li>Medical Philosophy*</li> <li>Mental Therapy (Psychotherapy) *</li> </ul>
Professional Fields of Health and Nursing Science	<ul style="list-style-type: none"> <li>Life Stage and Nursing</li> </ul>	<ul style="list-style-type: none"> <li>Sexuality and Reproduction</li> <li>Health and Nursing</li> <li>Chronic Care Nursing I</li> <li>Acute Care Nursing I</li> <li>Rehabilitation Nursing</li> <li>Living and Nursing</li> <li>Family and Nursing</li> </ul>	<ul style="list-style-type: none"> <li>Health of School Children*</li> <li>Chronic Care Nursing II, III</li> <li>Acute Care Nursing II, III</li> <li>End-of-life Nursing</li> <li>Health of Elderly People*</li> <li>Public Health Nursing Activities I*</li> <li>Public Health Nursing Methodology I*</li> <li>Home Nursing</li> <li>Health and Nursing Science Research I</li> </ul>	<ul style="list-style-type: none"> <li>Women and Health*</li> <li>Liaison Mental Health Nursing*</li> <li>Health and Medical Economics*</li> <li>International Health*</li> <li>Health and Nursing Administration</li> <li>Health and Nursing Administration Seminar</li> <li>Health and Nursing Science Research II</li> <li>English for Health and Nursing*</li> <li>Nursing Education*</li> </ul>
	<ul style="list-style-type: none"> <li>International Activity* · Local Communication Activity*</li> </ul>			
Clinical Practicum	<ul style="list-style-type: none"> <li>Early Exposure (Clinical Experience Training)</li> <li>Fundamental Nursing Practice I</li> </ul>	<ul style="list-style-type: none"> <li>Fundamental Nursing Practice II</li> <li>Integrated Practice I</li> </ul>	<ul style="list-style-type: none"> <li>Region Cooperation Practice</li> <li>Home Nursing Practice</li> </ul>	<ul style="list-style-type: none"> <li>Integrated Practice II</li> <li>Public Health Nursing Practice*</li> </ul>
	<ul style="list-style-type: none"> <li>Health and Nursing Science Practice A (Maternity Nursing)</li> <li>Health and Nursing Science Practice B (Pediatric Nursing)</li> <li>Health and Nursing Science Practice C (Gerontological Nursing)</li> <li>Health and Nursing Science Practice D (Psychiatric Nursing)</li> <li>Chronic Care Nursing Practice</li> <li>Acute Care Nursing Practice</li> <li>Home Visiting Practice*</li> </ul>			

(A mark with a star (\*) shows an elective course.)





## Unique Classes

### Introduction to Medicine and Care

Introduction to Medicine and Care does not only convey medical knowledge and skill but, as a subject common to medical school and school of health and nursing science, it nourishes a perspective from the positions of patients and their families.



### Early Exposure (Clinical Experience Training)

Freshmen, just after they started college life, head out to the countryside to watch and explore the environment and the voices of the people living in the area. This experience will be useful to their study thereafter.



### Liberal Arts Seminar

Throughout the sessions of the subject freshmen discover problems per se and attempt to solve them in a small group. At first, photos or keywords trigger associations, and then students push forward their discussions, focus on their own studying target, collect information, and discipline their thinking power. In the last phase, each group gives presentation on the result of study at each end of terms.



## Student's Activities

Wakayama Medical University has encouraged students to develop their spontaneous investigations by granting subsidy to them. At the same time, School of Health and Nursing Science holds a class for pupil in junior high school for the purpose of their enlightenment. The activity, which is supported by our students' volunteer work, continued for five years and won official commendation of the Ministry of Education in 2013.





## International Exchanges

The School of Health and Nursing Science has a strong network with the School of Nursing in Shandong University in China; both schools dispatch their staff and students respectively once two years. In addition, a few students of the Chinese University of Hong Kong visit us for study for two weeks every year. Besides, School of Nursing in Mahidohl University in Thailand is one of our affiliated schools. The guests from abroad never fail to be invited to a traditional Japanese Tea Ceremony held within our school. A few students regularly take part in Camp Joslin for children with diabetes, which is hosted in the suburbs of Boston by Diabetes Center in Harvard University.



● Tea Ceremony



● Visiting Mahidohl University



● Visiting Shangdon University



● Camp Joslin in USA

Wakayama Medical University has eagerly promoted international exchange, with the foundation of International Exchange Center in 2006. Its objectives are to provide world-class education, research, medical systems to researchers, students, and medical specialists through academic exchange with universities research institutes, and medical institutions in countries with advanced medical science, to accept/send students, researchers, technicians in the field of medicine from/to developing countries (especially Asian countries) in order to support and improve their medical activities, and to cooperate with other universities' international programs and to promote internationalization throughout the prefecture. The center has got International Exchange House where visitors from abroad can stay comfortably.



● International exchange center  
(Library building 3<sup>rd</sup> floor)



● International exchange house  
(Hamayu dormitory 1<sup>st</sup> floor)



## Students' Lives

The students in School of Health and Nursing Science are all full-time students. A school year is divided into two. Spring term begins in early April and lasts to the end of July. Autumn term starts in October and comes to an end after examinations in February. On the other hand, entrance examinations are held in December, February and March.



● Entrance ceremony



● Commencement ceremony

## Extracurricular Activities

### Cultural Clubs

- Tea ceremony
- Child rearing
- Music Volunteer
- Sign Language
- Fine Arts
- Easy Listening Music
- Club for supporting Library



● Easy Listening Music



● Boat

### Sports Clubs

- Table Tennis
- Judo
- Yacht
- Badminton
- Volleyball
- Baseball
- Aikido
- Boat
- Karate
- Basketball
- Tennis
- Skiing and Mountaineering
- Football
- Track and Field
- Kendo
- Golf
- Rugby Football



● Tea ceremony



● Table tennis



● Music Volunteer



● Karate



# Graduate School of Health and Nursing Science Master's Program

## ■ Educational Philosophy

The goal of our master's program is to train future pioneers of visions with sublime ethical mind in the field of health, healthcare, and welfare. Obtaining Master's Degree, they will be active as professionals ready to promote the kinds of research and education that emphasize the value of human dignity, while working hand-in-hand with various institutions bearing relation to health.

## ■ Hopes for Our Graduates

We hope our graduates will turn into professionals who can assume leadership roles in the community and promote health. They will, we hope, coordinate people and tasks in the health, healthcare, and welfare fields with their highly specialized knowledge and skills.

## ■ Three Major Emphasis Areas

The Master's program in Health and Nursing Science is divided into three emphasis areas: "Health Science," "Fundamental Nursing," and "Quality of Life and Community Health." The program is open to applicants with/without a nurse's qualification, but only the first area among those mentioned above accepts applicants without this kind of qualification. Although each area specializes in different aspects of health and nursing sciences, they also coordinate with each other to take advantage of all available resources.

Research methods and design are included in each of these three emphasis areas, so regardless of which area students choose to go into, they will all have the opportunity to develop their ability to think logically and critically and to clearly express their ideas. Graduates in the program discuss their own themes with supervisors at least once a week, and they are imposed to deliver a paper at a workshop once a year, and to complete their thesis.

In addition, the program has got three-year CNS (certified nurse specialists) in Cancer Nursing course. Applicants are limited to those who have clinical experiences as a nurse for at least three years. The program aims to train them for certified nurse specialist with highly advanced knowledge and skills and fully specialized practicum.

### ● Health Science Emphasis

This program is to examine health-related issues from the physical, psychological, and social aspects, and encourage the students to pursue the academic study of related fields.

### ● Fundamental Nursing Emphasis

This program is to train students to become professional practitioners, researchers, and educators in various specialized fields that are related to health and nursing sciences.

### ● Quality of Life and Community Health Emphasis

This program is to train health professionals who will promote the health of people as home, in the community, and in the workplace.





## Subjects offered

### Health Science Emphasis

- Advanced Health Promotion
- Practicum in Health Promotion Science
- Functional Neuro-Morphology Specialty
- Seminar in Functional Neuro-Morphology
- Child Health and Development
- Practice of Child Health and Development
- Advanced Mental Health
- Practicum in Mental Health
- Advanced Social and Preventive Epidemiology
- Practicum in Social and Preventive Epidemiology

### Fundamental Nursing Emphasis

- Advanced Fundamental Nursing Theories
- Practicum in Fundamental Nursing
- Advanced Gerontological Nursing
- Practicum in Gerontological Nursing
- Advanced Care of Chronic Illness
- Practicum in Chronic Care Nursing
- Advanced Critical Care Nursing
- Practicum in Critical Care Nursing
- Advanced Cancer Nursing
- Cancer Nursing Practicum
- \*Cancer nursing CNS course students take credits of the following subjects.
- Advanced Oncology Nursing I, II, III
- Palliative Care Exercise A, B
- Cancer Rehabilitation Nursing A, B

### Quality of Life and Community Health Emphasis

- Advanced Maternal Health
- Practicum in Maternal Health
- Advanced Child Health
- Practicum in Child Health
- Advanced Community Nursing
- Community Nursing Practicum
- Advanced Home Care Nursing
- Practicum in Home Care Nursing
- Advanced Environmental Health
- Practicum in Environmental Health

## Common Subjects

### Requisites

- Research Methodology for Health and Nursing Science
- Reading English Literature
- Informational Studies in Health and Nursing Science
- Special Research (thesis course)
- \*Cancer nursing CNS course students take credits of the following subjects.
- Clinical Pharmacology
- Physical Assessment
- Pathophysiology
- Clinical Practice of Cancer Nursing I, II, III, IV
- Subject Research

### Electives

- Health Care Ethics
- Introduction to Health and Nursing Science
- Theory of Health Management
- Nursing Education
- Nursing Management
- Nursing Theory
- Consultation
- Health Measurement and Assessment
- Health Nutrition
- Family Nursing
- Medical Care and Law
- Clinical Pharmacology (thesis course)
- Physical Assessment (thesis course)
- Pathophysiology (thesis course)



● Discussion with a mentor



● Workshop



# Graduate School of Health and Nursing Science Doctoral Program

## ■ Educational Philosophy

The goal of our doctoral program is to train future educators and researchers in field of the health, healthcare and welfare, who are broad-visioned, ethical minded, and ready to promote the kinds of research and education that put emphasis on the value of human dignity, correspond to various needs to medicine and healthcare with a pioneer spirit, contribute to health promotion in the areas relating to health.

## ■ Hopes for Our Graduates

The education and research offered by our doctoral program aims to cultivate those educators and researchers who acquire not only specific knowledge and skills but also get engaged in health promotion, based on social relationship, with a future perspectives of health/medicine, full of deep understandings based on scientific knowledge in the wide range of diseases to health, with the ability to consider human beings comprehensively.

## ■ Two Major Emphasis Areas

Our Master's Program is divided into three emphasis areas: Health Science Emphasis, Fundamental Nursing Emphasis, and Quality of Life and Community Health Emphasis, whereas the Doctoral Program is designed to synthesize them in Lifelong Health and Nursing Emphasis area and Community Health and Nursing Emphasis area for the purpose of conducting a comprehensive investigation into individual and collective preservation and promotion of health, as well as into livelihood support. Lifelong Health and Nursing Emphasis area is the one that graduates conduct scrutiny of livelihood support relating to individual or collective health from the perspective of life stages; Community Health and Nursing Emphasis area is the one that graduates investigate livelihood support relating to individual or collective health from community, the phase of human lives.

### ● Lifelong Health and Nursing Emphasis Area

Majors of this area deepen their understanding of issues related to health and nursing from the viewpoint of life stages of a human being. They are required to consider diseases together with their backgrounds, and, based on the latest findings, to develop preservation and promotion of health of individuals and groups and assistance with their lives.

### ● Community Health and Nursing Emphasis

Majors of this area deepen their understanding of health problems spreading in the community, the place people live in. They are required to grasp the situation of a community, and, based on the latest findings, to develop health preservation and promotion of individuals and groups and assistance with their lives.

## ■ Subjects offered

### Lifelong Health and Nursing Emphasis

- Maternal and Child Health Nursing
- Adult Health Nursing
- Geriatric Health Nursing

### Community Health and Nursing Emphasis

- Community Health Nursing

## ■ Common Subjects

### Requisites

- Research Methodology for Health and Nursing Science
- Special Research

### Electives

- Theories of Health Care
- Health Care Nursing



## Graduate Program in Midwifery

### Goals of Education

Graduate Program in Midwifery, Wakayama Medical University, firstly aims at developing a well-educated person with deep humanity. Secondly the Program educates and researches highly specialized knowledge and skills in relation to midwifery, maternal nursing, and child nursing in general. The third aim of the program is to contribute to the development and improvement of health of mothers and children living in communities.



GRADUATE  
PROGRAM  
IN MIDWIFERY  
WAKAYAMA MEDICAL UNIVERSITY

### Hopes for Our Graduates

- Human resources with respect for life and highly ethical mind.
- Practical human resources with highly specialized knowledge and scientific thinking, providing safe skills.
- Human resources who support women's lifelong health promotion and contribute to the development of maternal and child health in communities.
- Midwives with spirit of self-sufficiency and professionals playing an independent role as an expert.

### Subjects Offered

The course is based on reproductive health and made up of such subjects as Fundamentals and Practicum of Midwifery, Women's Health, and Growth Assistance. Some classes are in cooperation with midwives in practicum places, and in others students play an initiative role.



- Students are practicing in the campus for the preparation of mothers' class.



- Training in the campus for providing newly born children care.

# Academic Staff and Achievement

Forty eight researchers consist of School of Health and Nursing Science. The staff compose five units according to their areas of investigation and teaching fields: Fundamental Nursing, Adult Nursing, Geriatric Nursing, Pediatric Nursing, and Public Health Nursing. All the staff are engaging in both education and research guidance of undergraduates and graduates. At the same time they have made researches, aiming at maintaining and promoting health of community inhabitants and solving various problems accompanied by diseases and disorders.

Many of them have obtained external research fund such as Scientific Research Fund of the Ministry of Education, Ministry of Health and Labor Sciences Research Grant, and so forth. Aside from such national grant, the university makes great effort to develop capable researches. It goes without saying that the university distributes research budget to the staff. What is more, in order to raise younger researchers, it provides extra budget for researchers under forty years old and gives award to the best one each year. The following shows only a few examples of granted research themes that have got research grants from the Ministry of Education and/or Ministry of Labor.

## Researches with Grants

- Development of Program for Self-help Groups Enhancing the Survivorship of Large Intestine Cancer Patients
- Factors Relating to Higher Brain Dysfunction among Middle-aged and Elderly People and Construction of Strategies for Preventing Decline of Cognitive Function
- Research into Construction of Support Systems for Flight Nurses
- Research on Incidence of Diseases of the Circulatory System among Agricultural Region Inhabitants and Early Risk Factors of Artery
- Development and Evaluation of Death Recognition Models for Nursing Students in the Care of Dying Patients
- Child-Support Programs for Reintegration of Parent and Child Taken Temporarily into Protective Custody Due to Child Abuse
- Establishment of Comprehensive Support System Focusing on Life Events of Child on Long-term Sickness Leave and Their Family
- Research on Suicide Preventive Factors in the Regions in Japan Where Suicide Rarely Occurs

## The Feature of Researches

The most prominent feature of the researches conducted by the staff of School of Health and Nursing Science is represented by their investigations of community-based, comprehensive efforts of health promotion. They are developing researches for the purpose of establishing effective health care approaches on the basis of the results of their analyses: they have been analyzing the inhabitants in Wakayama prefecture so as to reveal hereditary, environmental factors making a contribution to the expressions of illnesses associated with aging such as lifestyle-related diseases and dementia. Those researches aim at improving the standards of health by suppressing the increase of various kinds of chronic illnesses, which will be an inevitable demographic aging in the near future. They also aspire for contributing to the achievement of community full of energetic and healthy inhabitants.





## Facilities

School of Health and Nursing Science has many lecture rooms with various sizes. They are fully equipped with highly advanced devices such as computers, enormous screens, and audiovisual apparatuses. In an IT room the students retrieve data on the Internet and complete their reports as well as improve their IT skills. In nursing practice rooms the students get prepared for hospital practicum.



- The largest lecture room with a capacity for over 180 people, fully equipped with cutting-edge devices.



- IT room where students get information on the internet and prepare reports.



- Students are checking vital signs in Fundamental Nursing Practice Room.

## Mikazura Library



Wakayama Medical University has two libraries, one of which belongs to School of Medicine. And the other one belongs to School of Health and Nursing Science, which is called Mikazura Library. Mikazura represents the address of our school. The library contains approximately 58,000 books, CDs, DVDs, and nearly 800 kinds of journals and periodicals. Furthermore about 200 books regularly join to the library every month. It has enough IT tools to search literature in database and IT resources such as online journals and e-books. The library provides space and services for studying, including rooms for small-group study, DVD booths and computers. It opens from 9 to 22 o'clock on weekdays, 10 to 17 on Saturdays.



- Students study in cooperation with one another in a studying room within the library.

## University Hospital

### Wakayama Medical University Hospital



Wakayama Medical University Hospital is the only advanced treatment hospital; it is the most important, comprehensive hospital for residents of Wakayama Prefecture, functioning as a cancer center and a hospital for children and newborn infants. It has introduced leading-edge medical devices such as the da Vinci Surgical System, a sophisticated robotic platform, Tomotherapy, a type of radiation therapy, LINAC standing for Linear Accelerator, a device for radiation therapy, and a hybrid surgery system for cardiovascular diseases. In addition to those technology mentioned above, the hospital has taken the lead in adopting a front-line operation theatre with Intraoperative Mobile CT and a computer navigation system.

It has 24 diagnosis and treatment departments, including newly opened departments of plastic surgery and rheumatism/connective tissue disorder. There are 22 central medical examination sections, together with 760 beds for general inpatients and 40 beds for psychiatric patients. Approximately 1,500 outpatients visit the hospital every day. The hospital is proud of highly advanced emergency medical helicopter, which each prefecture in Japan does not obtain. Now it has 19 operation theatres in the East Wing which opened in April, 2014, and 9 rooms especially for endoscope examination and treatment.

The hospital has been developing hand in hand with the School of Health and Nursing Science: in 2014, Center for Nursing Career Development is established for the purpose of unifying the Nursing Department of the hospital and our school. It will function as a kind of nursing cooperative unification by managing the practical education program for nurses with high quality.



### Wakayama Medical University Kihoku Hospital



The district of Kihoku lies in the northern part of Wakayama Prefecture, where Wakayama Medical University Kihoku Hospital has served as a reliable medical center for more than 60 years. The hospital provides community-based medical services, and meets the needs of the inhabitants around the district by providing safe and satisfactory medical care for them. It contains 104 beds, consisting of ten departments: Internal Medicine, Neurology, Cardiology, Surgery, Orthopedic Surgery, Neurosurgery, Anesthesiology, Pediatrics, Ophthalmology, and Rehabilitation.

Kihoku Hospital puts particular emphasis as a university hospital on nurturing of human resources: in fact it has sent forth a great number of physicians and nurses playing active roles in a variety of medical scenes. At the same time it has performed the functions of a research center as well: the staff never lose their intellectual curiosity in quest of the truth.

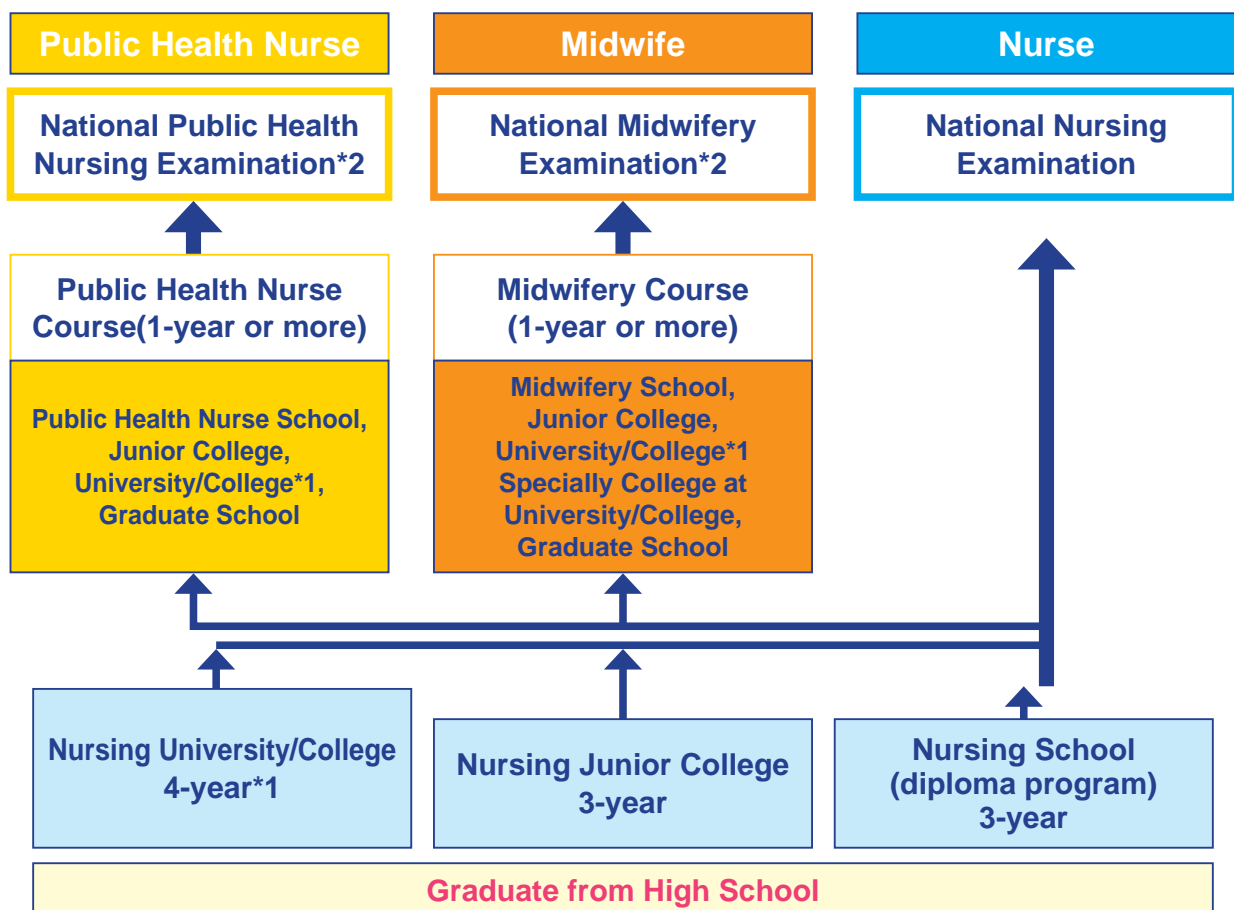
With the advent of the 21st century Japan entered an era of an aging population, as is known well, which inevitably brings the increase of elderly people suffering from multiple, complicated diseases. As a result we are in pressing need of a totally synthetic medical system, contrary to the one now in use which is divided into a plenty departments according to each organ. What is needed immediately is such a system caring patients with an extensive perspective in order to support aged people with a complex of various disorders. It is most urgent to nurture medical professionals who can contribute to comprehensive community care with great attention to the prevention of diseases. The director of Kihok Hospital has a strong intention of making the hospital play the role of a health care center as well as a medical facility to provide community inhabitants with enough support from preventing and diagnosing with illnesses to a mixture of care and medicine after discharge so that they can live with ease in their own house.

# How to Obtain Nursing Qualifications in Japan

The following draws on an article from Japanese Nursing Society's HP.  
 (<http://www.nurse.or.jp/jna/english/nursing/education.html>)

There are several courses of basic nursing education in Japan. In the main courses, basic nursing education is provided at 4-year colleges/universities, 3-year junior colleges or 3-year training schools after graduation from high school to take a national examination to obtain the national license. The educational institutions offering these three courses are under different regulating authority; colleges/universities and junior colleges are under the jurisdiction of Ministry of Education, Culture, Sports, Science and Technology (MEXT) while most training schools are under the jurisdiction of Ministry of Health, Labour and Welfare (MHLW)

Education for public health nurses and midwives is provided at colleges/universities, one-year colleges or training schools, and master's programs at graduate school. If a 4-year college/universities education includes a training program for public health nurses and/or midwives, graduates can qualify to take the national examination, not only for nurses, but also for public health nurses and/or midwives.



**Main basic nursing education courses**

\*1:Nursing University/ College provided Public Health Nursing Course and/ or Midwifery Course in 4-year education, those graduates could get qualification to sit for national examination for Public Health Nurse and /or Midwife in addition to Nurse.

\*2:To obtain Public Health Nursing /Midwifery License, it is required to hold Nursing License.



## Wakayama Medical University

School of Health and Nursing Science  
Graduate School of Health and Nursing Science  
Graduate Program in Midwifery

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