

| | | | |
|--|---|---------------------------------------|--|
| Category (科目区分) | Basic subjects | | |
| Course Title (授業科目名) | Clinical medicine General remarks | | |
| Instructors (担当者名) | Academic Affairs Chair | Academic Year (配当年次) | 1 |
| Required Course / Elective Course (必修/選択) | Required Course | Credits (単位数) | 4 |
| Class Format (授業形態) | WebClass (on demand) | | |
| Schedule (開講期間) | From around late April 2024 to December 31, 2024 | | |
| Class Date/Period (開講曜日・時間) | — | | |
| Course Outline/ Course Objectives (授業の概要・到達目標) | | | |
| <p>Clinical medicine requires solid medical knowledge, skills, comprehensive diagnostic ability, and humanity. General lectures on clinical medicine will be given on internal medicine, surgery, neuromotorology, sensory organs, reproductive development medicine, and comprehensive medicine, and basic knowledge will be taught. Develop the ability to grasp the current state of modern medicine and raise problems to be solved.</p> | | | |
| Course Planning (授業計画) | | | |
| | Course Outline/ Course Objectives (授業の概要及び到達目標) (Contents of Class) ((授業内容)) | Instructor (担当教員名) | Department (講座名) Class Room [実施場所] |
| 1 | Students will learn basic knowledge about human mental functions and their abnormalities (psychiatric symptoms). To understand the significance of psychiatry and psychiatric research by studying the epidemiology of mental disorders in Japan and public health issues related to mental health such as depression, suicide, and dementia. | Professor Kazuo Mishima | Department of Neuropsychiatry [Webclass] |
| 2 | | | |
| 3 | Emergency medical care is an infrastructure for the safety and security of local residents, and in order to build the system, it is necessary to reform the system with the aim of improving the quality of pre-hospital emergency medical care and initial medical care at medical institutions. In addition, further progress in intensive care medicine such as artificial respiration management as organ support and acute blood purification is required to save the lives of critically ill emergency patients. On the other hand, although it has become possible to prolong life due to such advances in medicine, there are cases in which it is difficult to finally save lives in modern medicine, and human dignity is achieved through multidisciplinary collaboration with other fields such as clinical ethics. There is an urgent need to build a medical supply system that does not impair. In this class, we will explore the issues related to these emergency medicine and intensive care medicine. | Associate Professor Manabu Okuyama | Department of Emergency and Critical Care Medicine [Webclass] |
| 4 | | | |

| | Course Outline/ Course Objectives (授業の概要及び到達目標) (Contents of Class) (授業内容) | Instructor (担当教員名) | Department (講座名) Class Room [実施場所] |
|----|--|--|--|
| 5 | Student should gain a basic understanding of surgery for resolving the clinical problems. In addition, the student must learn appropriate ethics, attitude, and custom to meet national expectations. As instructional objective in this class, the student will understand the anatomy, structure and function of the respiratory organs, and learn about the cause, pathophysiology, symptomatology, diagnosis and treatment of the chest surgery. | Associate Professor Kazuhiro Imai | Thoracic SUrgery [Webclass] |
| 6 | | | |
| 7 | Anesthesia management is not just about infusion anesthetics to the patients who undergoing surgery. It is a real-time treatment that maintains systemic homeostasis while monitoring and regulating respiration, circulation, central nervous system, body fluids, and body temperature. It is also a discipline that serves as a hub for a wide range of medical knowledge. In this class, we will explore the issues related to anesthesia management | Professor Yukitoshi Niiyama | Anesthesiolgy [Webclass] |
| 8 | | | |
| 9 | Pediatric surgery is a discipline dealing with pediatric surgical diseases, and the target age is 0 to 15 years old. The main target diseases are neonatal surgical diseases, childhood cancer, pediatric-specific digestive organs, urinary organs, and body surface diseases. In the treatment, not only lifesaving but also surgery and treatment by a specialist considering the growth and development of the child are necessary. The lecture will outline (1) neonatal surgical diseases and (2) treatment of childhood cancer. | Associate Professor Mizuno Masaru | Department of Pediatric Surgery [Webclass] |
| 10 | | | |
| 11 | It outlines the clinically frequent diseases of cardiovascular disease, and outlines the surgical treatment methods, assistive measures, and postoperative complications. As for diseases, we will teach the outline of diseases such as coronary artery disease, valvular disease, and aortic aneurysm, and show the specific surgical methods. While giving lectures on such diseases, we plan to deepen our awareness of medical problems while discussing the preciousness of life and the way of thinking about death with graduate students. | Professor Hiroyuki Nakajima | Department of Cardiovascular Surgery [Webclass] |
| 12 | | | |
| 13 | Respiratory diseases include a wide range of diseases such as malignant tumors, infections, allergies, and pulmonary dysfunction. They are increasing and are exacerbating our mortality rate. In this course, we will understand the pathophysiology and mechanism of bronchial asthma. In particular, understand allergy treatments targeting cytokines. In addition, understand medical statistics that are essential in clinical research. | Project Associate Professor Kazuhiro Sato | Respiratory Medicine [Webclass] |
| 14 | Metabolic disorders such as diabetes and obesity have become pandemic due to Westernized diet and lifestyle. Metabolism is the set of life-sustaining chemical reactions in organisms. To learn how normal metabolism works and maintains is important to understand the pathophysiology of diabetes and obesity which is caused by failure of normal metabolism. Students will learn about normal and abnormal metabolism and cutting-edge researches. | Professor Hironori Waki, Associate Professor Hiroki Fujita, | Department of Metabolism and Endocrinology [Webclass] |
| 15 | | | |

| | Course Outline/ Course Objectives (授業の概要及び到達目標) (Contents of Class) ((授業内容)) | Instructor (担当教員名) | Department (講座名) Class Room [実施場所] |
|----|---|--|---|
| 16 | Cardiovascular disease is an important disease that is the second leading cause of death in Japan. In this course, we will explain the basic matters of diseases such as ischemic heart disease, arrhythmia, and heart failure, which are important among them, focusing on the onset mechanism. | Professor Hiroyuki Watanabe | Department of Cardiovascular Medicine [Webclass] |
| 17 | Urology has both surgical and internal medicine aspects. In addition, oncology, kidney disease, male reproduction, pediatric urology, neurourology, women's urology, infectious diseases, etc. are becoming diverse. In this way, modern urology tends to be subdivided. Students are expected to have a general understanding of these issues, as well as gain deep expertise in the fields of interest and find issues for future problem solving. | Professor Tomonori Habuchi | Department of Urology [Webclass] |
| 18 | | Lecture Mitsuru Saito | |
| 19 | Typical diseases and their treatment methods are the functional significance of sensory organs such as hearing, balance, taste, and smell, which are handled in the field of otolaryngology, and their position in the QOL of people involved in breathing, vocalization, eating, and swallowing. In addition to giving an overview while touching on, we will also outline the issues in the same area that need to be resolved in the future, such as head and neck cancer diseases. | Professor Takechiyo Yamada | Department of Otorhinolaryngology, Head and Neck Surgery [Webclass] |
| 20 | | Associate Professor Shinsuke Suzuki | |
| 21 | Recent advances in the treatment of blood disorders are remarkable. Looking at the past, present, and future from molecular targeted therapy to transplantation. | Professor Naoto Takahashi | Department of Hematology, Nephrology, and Rheumatology [Webclass] |
| 22 | | | |
| 23 | Pediatrics is a field of study and research not only for the diagnosis and treatment of disease, but also for mental hygiene, health, and wellbeing in children. To attain the purpose of Pediatrics, it is important to comprehend such children along with their backgrounds of family, school, social environment, and even genetics. We discuss and understand a field of cancer in children as a practice of Pediatrics. | Professor Tutomu Takahashi | Pediatrics [Webclass] |
| 24 | | | |
| 25 | Currently, with the remarkable development of methods for genetic analysis, more than 200 causative genes of genodermatosis have been identified. In addition, it has been clarified that genetic mutations are related to the pathogenesis of various skin diseases such as atopic dermatitis and psoriasis, which were not previously thought to be genetic diseases. In this part, various genetic skin disorders will be discussed with functions of causative gene and pathomechanism. | Professor Michihiro KONO | Department of Dermatology and Plastic Surgery [Webclass] |
| 26 | | | |
| 27 | This lecture will focus on one of the main field in neurosurgery; surgery for cerebrovascular diseases. Especially current status of reasearch in cerebral aneurysms and revascularization in cerebral ischemia | Professor Hiroaki Shimizu | Neurosurgery [Webclass] |
| 28 | | | |
| 29 | The safety of surgical techniques for hepatectomy has remarkably advanced over time, and the rate of postoperative complication has been dramatically decreased. This class explains historical evolution of hepatectomy including basic research related to prevention of | Professor | Gastroenterological Surgery |

| | Course Outline/ Course Objectives (授業の概要及び到達目標) (Contents of Class) ((授業内容)) | Instructor (担当教員名) | Department (講座名) Class Room [実施場所] |
|----|--|--|--|
| 30 | of hepatectomy including basic research related to prevention of postoperative liver failure. In addition, current problems in surgery and role of molecular biology in the development of surgical research are also discussed. | Hiroshi Uchinami | Surgery [Webclass] |
| 31 | Laboratory tests such as blood tests and physiological tests are essential for the pathogenesis, diagnosis, and treatment of diseases. Due to the remarkable progress in medicine, clinical tests have become more extensive and specialized knowledge is required. In this lecture, the significance, usefulness, and clinical position of clinical laboratory tests will be presented. Novel methods and biological markers will be introduced, including those in our department. | Professor Shigeharu Ueki, Associate Professor Yuki Moritoki, | General Internal Medicine and Clinical Laboratory Medicine [Webclass] |
| 32 | | | |
| 33 | We give lectures related to radiation physics and biology important for understanding radiology. | | |
| 34 | By the end of class, you will understand the basics of current radiological diagnosis and radiotherapy | Lecturer Yuki Wada | Radiology [Webclass] |
| 35 | The eye as a sensory organ maintains its function by a special mechanism not found in other organs. Explains how transparent tissue without blood vessels maintains its transparency, the pathophysiology and disease concept of glaucoma, which is a typical disease of ophthalmology. We outline the neuroprotective treatment of the optic | Professor Takeshi Iwase | Department of Ophthalmology [Webclass] |
| 36 | | | |
| 37 | In advanced aging society, healthy life expectancy, defined as the period which a person can survive in an independent and active state of mind and body, is important. Orthopedic surgery treats a wide range of diseases such as degenerative diseases of joints and spine, musculoskeletal tumor, and various efforts are being made to maintain healthy life expectancy. In particularly, fractures and falls are the most common causes of bedridden patients. In this program, we outline the prevention and treatment of fractures and falls, which contribute to the maintenance and improvement of quality of life. | Associate Professor Yuji Kasukawa Associate Professor Koji Nozaka | Orthopedic Surgery [Webclass] |
| 38 | | | |
| 39 | (1) Most of the causes of liver cancer in Japan are due to HBV and HCV. HBV and HCV treatment is important for eradicating liver cancer. Therefore, we will outline the epidemiology, diagnosis, and latest treatment of chronic hepatitis, cirrhosis, and liver cancer caused by hepatitis virus in Japan. (Goto) | Associate Professor Takashi GOTO | Gastroenterology* Neurology [Webclass] |
| 40 | (2) Many neurological diseases are intractable diseases that progress chronically and are difficult to treat, but there are many diseases that have been elucidated and can be treated. The theme is neuroimmune diseases such as multiple sclerosis and myasthenia gravis, and the pathophysiology, symptoms, and treatment are outlined. (Sugawara) | Lecturer Masashiro Sugawara | |
| 41 | Stroke is one of the three major illnesses and is a clinically important illness. It is a disease that is closely related to aging and general lifestyle-related diseases, and is rarely discussed comprehensively because it spans many fields. In the treatment, prevention, pre-illness medical care system, and social infrastructure are widely involved in the life period | guest professor | [Webclass] |

| | Course Outline/ Course Objectives (授業の概要及び到達目標) (Contents of Class) ((授業内容)) | Instructor (担当教員名) | Department (講座名) Class Room [実施場所] |
|--|---|------------------------------|---|
| 42 | including long-term care after stroke. Learn the physiology and pathophysiology of the central nervous system and related cerebral circulation necessary for understanding the disease of stroke, as well as treatment methods for stroke, and consider measures to reform the medical care system related to stroke and enhance the social | Tatsuya Ishikawa | [Webclass] |
| Grading Criteria (成績評価の基準と方法) | | | |
| Grading is based on the viewing of lectures and reports. | | | |
| Contact Information (問い合わせ先(氏名, メールアドレス等)) | | | |
| Name: Academic Affairs Chair / E-mail: gakumu-in@jimu.akita-u.ac.jp | | | |
| Coment (その他特記事項) | | | |
| Information about the course of study : Please watch the lectures by yourself via WebClass. Viewing period: Late April – December 31 Textbooks and references: None in particular Study content during self-study time: It is advisable to conduct preparatory study according to the achievement objectives and class content. | | | |