

2016年度

九州歯科大学 シラバス

大学院

歯学研究科 歯学専攻

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Fresher ' s Research Training Program (Fresher ' s Research Training Program)

開講年次	1 grade	期区分	前期	科目	Compulsory subject (Basic)	単位数	1
授業方法	講義	時間数	16	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Director of Graduate School						
担当教員	歯学研究科長、日高 勝美、安細 敏弘、森本 泰宏、動物実験施設長、有吉 渉、竹内 弘、中原 孝洋、中島 秀彰、瀬田 祐司、外部講師						

授業の概要

【Language】 English and Japanese

In order to start the research in graduate school, to understand the actual and the theory of the basic knowledge you need to know.

学生の到達目標

1. You can understand the laws and regulations and various guidelines for scientific research can respond
2. You can learn how use of the library, and practice the data retrieval methods using the planning and PubMed of research plan based on EBM
3. You can learn a minimum of knowledge of radiation exposure needed to use the X-ray imaging apparatus in animal research center and practice them. You can also explain about typical infection of the experimental animals in detail, particularly about the “ zoonotic disease ”
4. You can determine whether the reagents you use are non-medical of deleterious substances or poisons. You can explain the management for non-medical of deleterious substances or poisons. You can explain the safety measures in the laboratory
5. You can explain the critical medical ethics as medical professionals
6. You can understand the standard infection prevention required in practice to understand the basic procedure of nosocomial infection prevention and carry out them

テキスト

出) (著)

参考書

出) (著)

成績評価方法・基準

評価項目	割合
attendance	100%

その他

2016年度

Fresher ' s Research Training Program (Fresher ' s Research Training Program)

開講年次	1 grade	期区分	前期	科目	Compulsory subject (Basic)	単位数	1
授業方法	講義	時間数	16	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Director of Graduate School						
担当教員	歯学研究科長、日高 勝美、安細 敏弘、森本 泰宏、動物実験施設長、有吉 渉、竹内 弘、中原 孝洋、中島 秀彰、瀬田 祐司、外部講師						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Ethics in scientific research I Learn an overview of the laws, regulations and various guidelines for epidemiological studies and clinical research.	Lecture	Hidaka K	Review of lecture
2	Literature search and use of library Learn how use of the library, and practice the data retrieval methods using the planning and PubMed of research plan based on EBM.	Lecture	Anasai T, Morimoto Y	Read the textbook prior or post lecture
3	Animal experiments and genetic recombination Learn about infectious diseases of experimental animals, radiation exposure in animal research center, and gene recombination.	Lecture	Director of Graduate School, Director of Animal Research Center, Morimoto Y Ariyoshi W	Review of lecture
4	Handling of poisonous and deleterious substances, management of the laboratory Learn about safety measures in the laboratory on the handling of poisonous and deleterious substances used in the experiments.	Lecture	Takeuchi H	Check the storage and usage of reagents in the laboratory after the lecture
5	Ethics in scientific research II	Lecture	Nakahara T	Review of lecture
6	Infection control in medical care activities Learn a nosocomial infection control and medical accident measures that are required in medical care activities.	Lecture	Nakashima H	Review of lecture
7	Industry-university cooperation Learn about industry-university cooperation in order to take advantage of the research at the university in the industry.	Lecture	Extramural Lecturer	Review of lecture
8	Bioethics Learn about problems of bioethics and medical ethics.	Lecture	Seta Y	Review of lecture

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Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業の概要

【Language】 Japanese

You can learn about the importance of researching the problems of the dental field, among health issues of all people living in the region, by focusing on the relationship between epidemiological methods and social system. In particular, you can learn about the basic knowledge to study the role that play of the dental health care and dental health care workers among the social security system.

学生の到達目標

- 1 . You can explain about dignity of the patient, medical ethics and research ethics.
- 2 . You can explain the concept of health and disease.
- 3 . You can explain the basic idea of the dental practitioners laws and related regulations.
- 4 . You can explain the concept of prevention in public health and dental care.
- 5 . You can explain the main overview of health medical statistics.

テキスト

出) 著)

参考書

Health in Japan : Recent Vital Statistics. Japan.

出)Health, Labour and Welfare 著) Statistics Association

Concise Text of Hygiene and Public Health. Japan. 2016.

出)Nankodo.Co. 著)Ichiro Tsuji

Visual Guide: Medical Care and Public Health. Japan. 2011.

出)Institute for Health Care 著)Medic Media Co. Information Sciences, Inc.

Dental Practice Management : For Dental Quality and Safety. Japan. 2011.

出)Japanese Society of Dental 著)Ishiyaku Pub,Inc Practice Administration

成績評価方法・基準

評価項目	割合
percentage of reports	50%
oral examination	50%

その他

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習課題
1	Society and dentistry You can learn about the concepts of health which become a foundation of public health, the relations between society and the environment, and the concepts of prevention.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
2	Society and dentistry You can learn about the patient's dignity, the ethics of medicine which support this and the various norms.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
3	Society and dentistry You can learn about the relations between dentistry and society, and the responsibilities of the dentist.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
4	Medical insurance system You can recognize about the whole picture of the social security system, and learn about the national health insurance system which supports the medical care among the social insurance.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
5	Pension insurance system, Workers' compensation insurance system You can learn about pension insurance system and workers' compensation insurance system which constitute the social insurance.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
6	Nursing care insurance system You can learn about the long-term care insurance system which is one of the social insurance.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
7	Employment insurance, Social welfare system You can learn about the employment insurance system which is one of the social insurance, and the social welfare and public assistance which are component of the social security.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
8	Dental doctor and related regulations You can recognize the responsibility of dentist and the overview of Dental Practitioners Law which defines the business, and learn about the current situation surrounding the dentist from the relevant statistics.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
9	Dental doctor and related regulations You can recognize the overview of medical law that defines the healthcare delivery system in Japan and learn about the support of the selection for medical and the ensuring the safety of medical.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
10	Dental doctor and related regulations You can learn about the management of hospitals and clinics which defined in the Medical Care Act, and the ensuring of the health care provider system of medical care plans.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
11	Dental doctor and related regulations You can recognize about the overview of the Pharmaceuticals and Medical Devices Act, and learn about management of the pharmacy, examination of pharmaceutical products, and the relationship of medical equipment and health insurance treatment.	lecture	Fukuizumi	Reading an article, handout, reference book intensively

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

回	学習内容	授業方法	担当教員	事前・事後学習課題
12	Dental doctor and related regulations You can recognize about the advertising regulations and adverse reaction reports which are defined in the Pharmaceuticals and Medical Devices Act, and learn about the regulations such as poison and narcotic.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
13	Society and demographics You can recognize about the overview of Statistics Act and learn about the typical official statistics and the typical indicators, related to health care among the fundamental statistics and general statistics.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
14	The actual condition of dental health administration in urban and rural prefectures Following the trend of dental health care administration promoted by the country, you can learn about the concrete efforts of the dental health administration which is carried out in the prefectures.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
15	The actual condition of dental health administration in cities, towns and villages Following the trend of dental health care administration promoted by the national and prefectural, you can learn about the concrete efforts of the dental health administration which is carried out in the municipality.	lecture	Fukuizumi	Reading an article, handout, reference book intensively

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業の概要

【Language】 Japanese

You can learn about the basic idea of epidemiology, the underlying law of regulations and the relations between the dental doctors and the health services in each field such as dental health in region, school dental health, health promotion, disease prevention, international health and mental health. In particular, you can learn about the basic knowledge to study the role of dental health care workers in various health businesses.

学生の到達目標

- 1 . You can explain about the basic idea of the medical occupations and related laws and regulations.
- 2 . You can explain about health, medical care, welfare and social institutions related to nursing care, community health care and social environment.
- 3 . You can explain about the relations between the environment and health.
- 4 . You can explain about the population level prevention and health management.
- 5 . You can explain about the medical care based on epidemiological and scientific basis, and application of health statistics.

テキスト

出) 著)

参考書

Health in Japan : Recent Vital Statistics. Japan.

出)Health, Labour and Welfare 著) Statistics Association

Concise Text of Hygiene and Public Health. Japan. 2016.

出)Nankodo.Co. 著)Ichiro Tsuji

Visual Guide: Medical Care and Public Health. Japan. 2011

出)Institute for Health Care 著)Medic Media Co. Information Sciences,Inc.

Manual of epidemiology. Japan. 2012.

出)Nanzando.Co. 著)Hiroshi Yanagawa

成績評価方法・基準

評価項目	割合
percentage of reports	50%
oral examination	50%

その他

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習課題
1	Related laws and regulations and health care occupations You can learn about the overview of Dental Hygienists Act and Health Nurses Midwives and Nurses Act, the relevant government ordinance, the system based on law and the situation of employment.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
2	Related laws and regulations and health care occupations You can learn about the dental technician method, pharmacist method, the overview of the Medical Practitioners Law, and the relevant government ordinance, the system based on the law, and the situation of employment.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
3	Related laws and regulations and health care occupations You can learn about the radiological technologists method, speech therapist method, physical therapists and occupational therapists method, a compendium of the law of relationship occupations of dietitian method, and the situation of employment.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
4	Adult health You can recognize about the change of the disease structure and the current situation of lifestyle-related diseases, and learn about the target value which defined as health promotion business of the municipality, specific medical examinations and specific health guidance, Healthy Japan 21 (second) and Dental and Oral Health Law.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
5	Community health, public health centers You can recognize about the business of the health centers and municipal health centers which become a base of the public health of the region, and learn about the importance of regional diagnosis.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
6	Epidemiology and dental care You can learn about the basic idea of epidemiology which is the foundation of public health, and epidemiological approach, research procedures, and the applications of dental medicine.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
7	Epidemiology and dental care Give the topics of specific epidemiological studies in order to understand the detailed exposition of epidemiology, and you can learn about the study design and the level of evidence.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
8	Epidemiology and dental care You can recognize the concept of screening, and learn about the relationship of various epidemiological indicators and research design.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
9	Maternal and child health You can get the overview of maternal and child health which supports the healthy growth of children, and learn about maternal and child health policy in Japan.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
10	Health Promotion You can get the overview of health promotion law, and learn about current state of health promotion measures in the municipality.	lecture	Fukuizumi	Reading an article, handout, reference book intensively

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
11	International Health You can recognize about the overview of international health and the concept of the important disease prevention in public health, and learn about various infectious diseases prescribed in the Infectious Disease Law and Preventive Vaccination Law.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
12	School Health You can recognize about the concept of school health which is important for health management in the school age, and learn about variety of measures prescribed in the School Health and Safety Act.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
13	Environment and Health You can recognize about relationship of the various environmental factors and Basic Environment Law which affect the public health, and learn about the hygiene standards of water supply and sewerage systems.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
14	Mental Health and Welfare You can recognize about the overview of mental health and welfare, and learn about Mental Health Act and medical observation method.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
15	Care of the elderly You can recognize about the current state of aging and the Elderly, and learn about overview of the oral-related care service in long-term care insurance, the relationship between the long-term care insurance facilities and the elderly welfare facilities.	lecture	Fukuizumi	Reading an article, handout, reference book intensively

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業の概要

【Language】 Japanese

You can learn about the measures to responses to industrial dental health, labor management, medical safety management (including the safety management of pharmaceuticals and medical devices), medical information management, food hygiene, people with disabilities health and welfare and responding to medical malpractice.

In particular, you can learn about the basic knowledge to study the role of dental health care workers in the efforts that are required in the position and social security system on a variety of systems.

学生の到達目標

- 1 .You can explain about the relations between environment and health.
- 2 . You can explain about health, medical care, welfare and social institutions related to nursing care, the regional medical care and social environment.
- 3 . You can explain the prevention and health management of the office level.
- 4 . You can explain about the use and management methods of health care information.
- 5 . You can explain about the dialogue capability, the attitude and mindset necessary to obtain the principal consent of the patient after conducting an appropriate description of the order to practice medicine in the patient-oriented.

テキスト

出) (著)

参考書

Health in Japan : Recent Vital Statistics. Japan.

出)Health, Labour and Welfare (著) Statistics Association

Concise Text of Hygiene and Public Health. Japan. 2016

出)Nankodo.Co. (著)Ichiro Tsuji

Visual Guide: Medical Care and Public Health. Japan. 2011.

出)Institute for Health Care (著)Medic Media Co. Information Sciences,Inc.

Manual of epidemiology. Japan. 2012.

出)Nanzando.Co. (著)Hiroshi Yanagawa

成績評価方法・基準

評価項目	割合
percentage of reports	50%
oral examination	50%

その他

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Occupational health You can understand about the overview of the occupational health which is responsible for the health management of workers, and learn about worker protection measures stipulated in the Labor Standards Act and the Occupational Safety and Health Act.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
2	Occupational health You can understand about the overview of the Labor Contract Law which is one of the worker protection measures, and learn about the handing of fixed-term employment contract of dentist and the features of medical contract.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
3	Medical information and its management You can understand about the handling of medical records associated with dental care and learn about the provisions in Dental Practitioners Law, the medical law and the recuperation charge rules.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
4	Medical information and its management You can understand about the handling of personal information in the dental clinic and learn about the provisions in the Personal Information Protection Act and the guidelines for handling.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
5	Pharmaceuticals (including biologics) and the safety management of medical equipment (medical Care law, etc.) You can understand about the safety management of the pharmaceuticals and medical devices in dental clinic, and learn about the provisions in the Medical Care Act.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
6	National Nutrition and Food Health (National Health and Nutrition Examination Survey, the Food Sanitation Law, etc.) You can understand about the significance of the National Health and Nutrition Examination Survey, and learn about the overview of food hygiene involved in closely public health, and trend of food poisoning.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
7	Disability health and welfare You can understand about the overview of health and welfare measures for people with disabilities and learn about the circumstance leading to the enactment of the Disability Comprehensive Support Law, and the Convention on the Rights of Persons with Disabilities, and normalization.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
8	Dentistry viewed from the patient's point of view You can understand about patient ' s dignity and medical ethics and learn about legal status related to responsibility of the dentist.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
9	Conflict Management You can understand about the cause of medical dispute in dental clinic and learn about Medical Mediation which is a method to solve this.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
10	Health Promotion You can understand about the alternative dispute resolution which is attracting attention as a solution of medical dispute and learn about trends in medical litigation.	lecture	Fukuizumi	Reading an article, handout, reference book intensively

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
11	Recent Trends in dental health care administration As a summary of health care theory in general, you can learn about recent developments in the dental health care administration.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
12	Study design You can learn about whole picture of the level of evidence, the various study design and the outcome measures.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
13	Study design You can learn about the design outcome measures, advantages and disadvantages of cross-sectional study.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
14	Study design You can learn about the design outcome measures, advantages and disadvantages of the cohort study.	lecture	Fukuizumi	Reading an article, handout, reference book intensively
15	Study design You can learn about the design outcome measures, advantages and disadvantages of randomized controlled trials (RCT).	lecture	Fukuizumi	Reading an article, handout, reference book intensively

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業の概要

【Language】 Japanese

Based on objective documentation, while to clarify the current status and changes in disease, risk and lifestyle, you can learn about the epidemiology technique which is essential in order to evaluate the results of individual health policy.

In particular, you can learn about the basic knowledge to study the stretching of the healthy life expectancy and the reduction of health disparities, and the prevention of the onset and severity of lifestyle-related diseases.

学生の到達目標

1. You can explain about the epidemiological studies and ethics.
2. You can explain about the basic method of epidemiology.
3. You can explain about the distraction of healthy life expectancy and reduction of health disparities.
4. You can explain the onset prevention and aggravation prevention of lifestyle-related diseases.
5. You can explain about the practice of policy epidemiology.

テキスト

出) 著)

参考書

Health in Japan : Recent Vital Statistics. Japan.

出)Health, Labour and Welfare 著) Statistics Association

Concise Text of Hygiene and Public Health. Japan. 2016.

出)Nankodo.Co. 著)Ichiro Tsuji

Visual Guide: Medical Care and Public Health. Japan. 2011

出)Institute for Health Care 著)Medic Media Co. Information Sciences,Inc.

Manual of epidemiology. Japan. 2012.

出)Nanzando.Co. 著)Hiroshi Yanagawa

成績評価方法・基準

評価項目	割合
percentage of reports	50%
artifacts of practice	50%

その他

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Epidemiology of meaning and ethics You can learn about the epidemiology's meaning and purpose, ethics of epidemiological research, and the validity of the intervention studies and subject selection.	lecture practice	Fukuizumi	reading an article, handout, reference book intensively
2	Measurement of disease frequency You can learn about prevalence, cumulative incidence, prevalence, mortality, fatality rate, relative frequency.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
3	Measurement of exposure effect You can learn about the rate of difference ratio, survival rate, and healthy life expectancy.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
4	Epidemiological research methods You do the review of the contents of the scientific papers using the CASP (CRITICAL APPRAISAL SKILLS PROGRAMME), and learn and to clarify the difference between observational studies.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
5	Sample survey You can learn about complete enumeration and sample surveys, the population and the sample, randomization, the concept of sampling, method of determining the size of the specimen.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
6	Error, bias and its control You can learn about error classification, bias, exclusion of confounding factors, and the standardization of the rate.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
7	The judgement of the cause-and-effect relationship You can learn about criteria for causality, evaluation methods, risk factors and prevention factors.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
8	Epidemiological factors You can learn about host factors, environmental factors, and multi-factor etiology.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
9	Screening You can learn about the significance of Screening, evaluation method, implementation conditions, program evaluation, and typical screening program.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
10	Epidemiology of infectious diseases You can learn about three conditions of the infection onset, the index of spread of infection, resistance force of epidemic and host, pathogen and the route of infection, and the epidemic investigation.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
11	Etiology epidemiology You can learn about etiology epidemiology, risk factors, and molecular epidemiology.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively

2016年度

Training Program in Public Health and Social Security Policy (Training Program in Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

回	学習内容	授業方法	担当教員	事前・事後学習課題
12	Policy epidemiology You can learn about population approach, high-risk approach, and medical economic evaluation (outcome analysis).	lecture practice	Fukuizumi	Reading an article, handout, reference book
13	Actual research plan You can learn about selection of the survey items, information collection method, the creation of questionnaire, and the flow of data analysis.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
14	Epidemiological analysis technique You can learn about contingency tables, regression and correlation, actual assays, and multivariate analysis.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively
15	Creating a statistical chart You can learn about the principle of charting, and the formats and features of the statistics chart.	lecture practice	Fukuizumi	Reading an article, handout, reference book intensively

2016年度

Practice of Public Health and Social Security Policy (Practice of Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業の概要

【Language】 Japanese

About the medical service fee system which revised every two years, and the long-term care compensation plans which revised every three years, You can analyze the background leading up to each of the most recent changes and institutional reforms.

Also, from the statistical survey associated with each reward including Survey of Medical Care Activities in Public Health Insurance and Survey of Long-term Care Benefit Expenditures, you can understand the trends of the post-reform of the system and learn a method of utilizing Policy Research, and a research technique for performing a simulation.

学生の到達目標

1. You can explain the long-term care compensation system and the medical fee system.
2. You can explain the statistical survey associated with each reward including the social care intervention surveys and nursing care payment survey.
3. You can take advantage of the policy research and practice the simulation.

テキスト

The list of Statistical Surveys conducted by Ministry of Health
出) Labour and Welfare (著)

The Portal Site of Official Statistics of Japan(e-Stat)
出) (著)

参考書

Health in Japan : Recent Vital Statistics. Japan.
出) Health, Labour and Welfare (著)
Statistics Association

The Trends of Insurance and Pension. Japan.
出) Health, Labour and Welfare (著)
Statistics Association

Health, Labour and Welfare Statistics Association
出) Health, Labour and Welfare (著)
Statistics Association

成績評価方法・基準

評価項目	割合
percentage of attendance	30%
results of simulation	25%
oral presentation	25%
discussion	20%

その他

〔Text〕

- The list of Statistical Surveys conducted by Ministry of Health, Labour and Welfare
<http://www.mhlw.go.jp/toukei/itiran/>
- The Portal Site of Official Statistics of Japan(e-Stat)
<http://www.e-stat.go.jp/SG1/estat/eStatTopPortal.do>

2016年度

Practice of Public Health and Social Security Policy (Practice of Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Recognize the background of institutional reforms and the relationship of the statistical survey associated with each reward, You can take advantage of the policy research and practice the simulation. Give your presentation about the results of the simulation and discuss about the latest trend.	Take advantage of the policy research and practice the simulation. Practice including Presentation and Discussion	Fukuizumi	Reading an article,handout ,reference book intensively and investigate issues on the related area

2016年度

Practice of Public Health and Social Security Policy (Practice of Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業の概要

【Language】 Japanese

Among the Health, Labor and Welfare statistics, for each area of health and sanitation sector (Survey of Medical Institutions, Hospital Reports, Patient Survey, Patient's Behavior Survey, National Health and Nutrition Survey, Report on Public Health Administration and Services, Estimates of National Medical Care Expenditure, Survey of Physicians, Dentists and Pharmacists, Survey of Dental Diseases, Survey on No-Dentist Districts), population and household sector (Vital Statistics, Life tables, Comprehensive Survey of Living Conditions), social welfare sector (Report on Social Welfare Administration and Services, National Survey on Public Assistance Recipients), the sector of health and welfare for elderly (Survey of Institutions and Establishments for Long-term Care, Report on Long-term care insurance business situation), social security sector (Survey on the Redistribution of Income), you can understand the latest trends of the post-reform of the system and learn a method of

学生の到達目標

1. You can explain the features of Health, Labour and Welfare statistics, etc.
2. You can explain the overview of each area of Health, Labour and Welfare statistics.
3. You can take advantage of policy research of each statistic and practice the simulation.

テキスト

The list of Statistical Surveys conducted by Ministry of Health
出) Labour and Welfare (著)

The Portal Site of Official Statistics of Japan (e-Stat)
出) (著)

参考書

Health in Japan : Recent Vital Statistics. Japan.
出) Health, Labour and Welfare (著)
Statistics Association

Health, Labour and Welfare Statistics Association
出) The Trends of Insurance and (著)
Pension. Japan.

Health, Labour and Welfare Statistics Association
出) Health, Labour and Welfare (著)
Statistics Association

成績評価方法・基準

評価項目	割合
percentage of attendance	30%
the results of simulation	25%
oral presentation	25%
discussion	20%

2016年度

Practice of Public Health and Social Security Policy (Practice of Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

その他

〔Text〕

- The list of Statistical Surveys conducted by Ministry of Health, Labour and Welfare
<http://www.mhlw.go.jp/toukei/itiran/>
- The Portal Site of Official Statistics of Japan(e-Stat)
<http://www.e-stat.go.jp/SG1/estat/eStatTopPortal.do>

2016年度

Practice of Public Health and Social Security Policy (Practice of Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T.						
担当教員	福泉 隆喜、栗野 秀慈						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Recognize the trends of results in each area of Health, Labour and Welfare statistics, you can take advantage of the policy research and practice the simulation. Give your presentation about the results of the simulation and discuss about the latest trend.	Take advantage of the policy research of Health, Labour and Welfare statistics and practice the simulation. Practice including Presentation and Discussion	Fukuizumi	Reading an article, handout, reference book intensively and investigate issues on the related area

2016年度

Colloquium of Public Health and Social Security Policy (Colloquium of Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T						
担当教員	福泉 隆喜、栗野 秀慈						

授業の概要

You examine carefully several article related public health and social security policy in order to recognize latest trend of the study. Moreover, you give your own presentation about state of progress and discuss the development of your study.

学生の到達目標

1. You can learn the way of critical thinking throughout examining carefully several article related public health and social security policy.
2. You can recognize the background and methods of your own study.
3. You can explain your own research exactly.

テキスト

Choose an article that you would like to introduce and discuss with the members.

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
attendance	30%
comprehension of the article	25%
oral presentation	25%
discussion	20%

You can earn 8 units for 4 years maximum.

その他

We accept your visit at any time at our office in the 3rd floor of main building.

2016年度

Colloquium of Public Health and Social Security Policy (Colloquium of Public Health and Social Security Policy)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuizumi T						
担当教員	福泉 隆喜、栗野 秀慈						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Recognize background, methods and the latest trend of the study. Give your presentation about state of progress and discuss to embody and to develop your study.	Practice including Presentation and Discussion	Fukuizumi	Reading an article intensively and investigate issues on the related area to your study.

2016年度

Seminar in Biomaterials (Basic Course) (Seminar in Biomaterials (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Main subject	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Shimizu H.						
担当教員	清水 博史、永松 有紀、池田 弘						

授業の概要

【Language】English and Japanese

In this course, you will learn basic knowledge, handling and experimental test method of dental materials in order to research organic material, metal material and inorganic material. For this purpose, we will teach you the knowledge and skills with regards of denture base resin, composite resin, gold alloy, titanium alloy, porcelain, and fine ceramics in response to your research theme.

学生の到達目標

You should achieve following assignments;
Knowledge and handling of organic material
Casting of dental alloys, especially gold alloys
Knowledge and handling of dental porcelain and fine ceramics
Material test methods
Preparation of test piece and practice of three point loading test
Preparation of test piece and practice of shear test
Preparation of test piece and practice of bonding test
Using casting machine in response to dental alloy
Knowledge and handling of component analysis

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
contents or the research report	80%
meeting and techniques of presentation	20%

その他

Related text books

2016年度

Seminar in Biomaterials (Basic Course) (Seminar in Biomaterials (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Main subject	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Shimizu H.						
担当教員	清水 博史、永松 有紀、池田 弘						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation	lecture	Shimizu Nagamatsu Ikeda	Review of lecture
2	Impression material	lecture	Shimizu Nagamatsu Ikeda	Review of lecture
3	Denture base resin	lecture	Shimizu Nagamatsu Ikeda	Review of lecture
4	Composite resin	lecture	Shimizu Nagamatsu Ikeda	Review of lecture
5	Dental noble metal alloy	lecture	Shimizu Nagamatsu Ikeda	Review of lecture
6	Dental base metal alloy	lecture	Shimizu Nagamatsu Ikeda	Review of lecture
7	Dental porcelain	lecture	Shimizu Nagamatsu Ikeda	Review of lecture
8	Dental fine ceramics	lecture	Shimizu Nagamatsu Ikeda	Review of lecture
9	Elastic and permanent strain of impression materials	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
10	Transverse strength of dental resins	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
11	Bond strength of composite resins	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
12	Fabrication of wax pattern for gold alloy and casting using centrifugal casting machine	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
13	Fabrication of wax pattern for titanium alloy and casting using argon arc casting machine	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
14	Shear strength test of dental porcelain and fine ceramics	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
15	Research report meeting	Practice	Shimizu Nagamatsu Ikeda	Preparation of presentation

2016年度

Seminar in Biomaterials (Advanced Course)

(Seminar in Biomaterials (Advanced Course))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Shimizu H.						
担当教員	清水 博史、永松 有紀、池田 弘						

授業の概要

【Language】 English and Japanese

The dimensional accuracy and surface property of the working cast significantly affect the fitness of denture base or restorations. In the present course, you will study the effect of how to use hydrocolloid impression material on the various properties of the working cast.

学生の到達目標

You should achieve following assignments;

Gathering of information of various types of impression material and cast material

Learning the principles and using of the method of measurement equipment that is required for the analysis

Fabrication of test specimens and operating measurement equipment in the preliminary experiment

Calculation of the data obtained in the experiment and graphing and presentation

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
contents of the research report meeting	80%
techniques of presentation	20%

その他

2016年度

Seminar in Biomaterials (Advanced Course)

(Seminar in Biomaterials (Advanced Course))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Shimizu H.						
担当教員	清水 博史、永松 有紀、池田 弘						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Fabrication of test specimens I Immediately after taking impression	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
2	Fabrication of test specimens II After disinfection of the impression	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
3	Fabrication of test specimens III after leaving impression	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
4	Fabrication of test specimens IV under a variety of conditions	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
5,6	Measurement of the dimensional precision of cast specimens	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
7-9	Measurement of the surface roughness of cast specimens	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
10	Measurement of the shape of cast specimens	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
11,12	Statistical analysis and graphs of all data	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
13,14	Creating a presentation	Practice	Shimizu Nagamatsu Ikeda	Review of lecture
15	Research report meeting	Practice	Shimizu Nagamatsu Ikeda	Preparation of presentation

2016年度

Dental Biomaterials (Dental Biomaterials)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject or minor subject	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Shimizu H.						
担当教員	清水 博史、永松 有紀、池田 弘						

授業の概要

【Language】 English and Japanese

In the present course, you will read a textbook ‘ Clinical Aspects of Dental Materials ’ in turn as well as a variety of biomaterials science-related English papers.

学生の到達目標

You should achieve following assignments;
Cultivating the reading comprehension of English
Understanding the difference between Japanese and English methods of representation
Learning how to study Biomaterials Sciences
Learning the latest trends in dental materials from a clinical point of view

テキスト

Clinical Aspects of Dental Materials

出)Journals e.g. Dental Materials 著)M. Gladwin, M. Bagby

参考書

出) 著)

成績評価方法・基準

評価項目	割合
contents of the research report meeting	80%
techniques of presentation	20%

その他

2016年度

Dental Biomaterials (Dental Biomaterials)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject or minor subject	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Shimizu H.						
担当教員	清水 博史、永松 有紀、池田 弘						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Gathering information from the English I research papers Training of English thinking of clinical trends in the dental materials.	Practice	Shimizu Nagamatsu Ikeda	Review of lecture

2016年度

Anatomy (Basic course) (Anatomy (Basic course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Main subject (Research)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業の概要

【Language】 English and Japanese

This course introduces the foundations of anatomy and molecular biology of sensory organs to students taking this course.

学生の到達目標

The goals of this course are to

- (1) be able to explain the structure and function of sensory organ,
- (2) be able to explain the synapse transduction,
- (3) be able to explain the mechanism of sensory reception,
- (4) be able to explain the differentiation of neuron,
- (5) be able to explain the taste receptors.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Usual performance score	60%
experimental performance in the lab	40%

その他

2016年度

Anatomy (Basic course) (Anatomy (Basic course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Main subject (Research)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-2	Introduction The foundation of sensory organs	Lecture	Seta Toyono Nakatomi Kataoka	
3-4	The morphology of sensory organs (1): visual organ	Lecture Practice	Seta Toyono Nakatomi Kataoka	
5-6	The morphology of sensory organs (2): vestibulocochlear apparatus	Lecture Practice	Seta Toyono Nakatomi Kataoka	
7-8	The morphology of sensory organs (3): taste organ	Lecture Practice	Seta Toyono Nakatomi Kataoka	
9-10	The morphology of sensory organs (4): olfactory organ	Lecture Practice	Seta Toyono Nakatomi Kataoka	
11-12	Action potential	Lecture Practice	Seta Toyono Nakatomi Kataoka	
13-14	Neurotransmission :Synapse	Lecture Practice	Seta Toyono Nakatomi Kataoka	
15-16	Sensory neuron (1): photoreceptor cell	Lecture Practice	Seta Toyono Nakatomi Kataoka	
17-18	Sensory neuron (2): olfactory neuron	Lecture Practice	Seta Toyono Nakatomi Kataoka	
19-20	Sex hormone in nervous system	Lecture Practice	Seta Toyono Nakatomi Kataoka	
21-22	Sensory neuron (3): taste receptor cell	Lecture Practice	Seta Toyono Nakatomi Kataoka	
23-24	Taste receptors	Lecture Practice	Seta Toyono Nakatomi Kataoka	

2016年度

Anatomy (Basic course) (Anatomy (Basic course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Main subject (Research)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
25-26	Development and differentiation of neuron	Lecture Practice	Seta Toyono Nakatomi Kataoka	
27-28	Development and differentiation of sensory organs	Lecture Practice	Seta Toyono Nakatomi Kataoka	
29-30	Sex hormone in taste organ	Lecture Practice	Seta Toyono Nakatomi Kataoka	

2016年度

Anatomy (Advanced course) (Anatomy (Advanced course))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Research)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業の概要

【Language】 English and Japanese

This course deals with the basis of fundamental morphological analysis. It also enhances the development of students' skill in carrying out a morphological experiment.

学生の到達目標

The goals of this course are to

- (1) be able to understand morphological analysis,
- (2) be able to prepare tissue section
- (3) be able to carry out immunohistochemistry
- (4) be able to carry out RT-PCR
- (5) be able to carry out cell culture

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Usual performance score	60%
experimental performance in the lab	40%

その他

2016年度

Anatomy (Advanced course) (Anatomy (Advanced course))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Research)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-2	Introduction What is morphological analysis.	Lecture	Seta Toyono Nakatomi Kataoka	
3-4	Preparing method of tissue section (1): Fixation	Lecture Practice	Seta Toyono Nakatomi Kataoka	
5-6	Preparing method of tissue section (2): Embedding tissue	Lecture Practice	Seta Toyono Nakatomi Kataoka	
7-8	Preparing method of tissue section (3): Sectioning tissue using paraffin block	Lecture Practice	Seta Toyono Nakatomi Kataoka	
9-10	Preparing method of tissue section (4): Sectioning tissue using frozen block	Lecture Practice	Seta Toyono Nakatomi Kataoka	
11-12	Immunohistochemistry (1): Apply first antibody	Lecture Practice	Seta Toyono Nakatomi Kataoka	
13-14	Immunohistochemistry (2): Apply second antibody	Lecture Practice	Seta Toyono Nakatomi Kataoka	
15-16	Fluorescence microscope and fluorescence observation method	Lecture Practice	Seta Toyono Nakatomi Kataoka	
17-18	RT-PCR (1): RNA preparation and cDNA synthesis	Lecture Practice	Seta Toyono Nakatomi Kataoka	
19-20	RT-PCR (2): Prepare gene-specific primers and PCR	Lecture Practice	Seta Toyono Nakatomi Kataoka	
21-22	Cloning gene fragment: TA cloning	Lecture Practice	Seta Toyono Nakatomi Kataoka	
23-24	in situ hybridization (1): Probe preparation	Lecture Practice	Seta Toyono Nakatomi Kataoka	

2016年度

Anatomy (Advanced course) (Anatomy (Advanced course))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Research)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
25-26	in situ hybridization (2): Pre-treatment of section and antibody visualization of digoxigenin	Lecture Practice	Seta Toyono Nakatomi Kataoka	
27-28	Cell culture (1): prepare culture medium	Lecture Practice	Seta Toyono Nakatomi Kataoka	
29-30	Cell culture (2): cell culture method	Lecture Practice	Seta Toyono Nakatomi Kataoka	

2016年度

Anatomy Practice (Basic course) (Anatomy Practice (Basic course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Main subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業の概要

【Language】 English and Japanese

This course deals with the basis of fundamental morphological analysis. It also enhances the development of students' skill in carrying out a morphological experiment.

学生の到達目標

The goals of this course are to

- (1) be able to understand morphological analysis,
- (2) be able to prepare tissue section
- (3) be able to carry out immunohistochemistry
- (4) be able to carry out RT-PCR
- (5) be able to carry out cell culture

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Usual performance score	60%
experimental performance in the lab	40%

その他

2016年度

Anatomy Practice (Basic course) (Anatomy Practice (Basic course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Main subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Introduction What is morphological analysis.	Lecture	Seta Toyono Nakatomi Kataoka	
2-3	Cell culture (1): prepare culture medium	Lecture Practice	Seta Toyono Nakatomi Kataoka	
4-5	Cell culture (2): cell culture method	Lecture Practice	Seta Toyono Nakatomi Kataoka	
6-7	Preparing method of tissue section (1): Fixation	Lecture Practice	Seta Toyono Nakatomi Kataoka	
8-9	Preparing method of tissue section (2): Sectioning tissue using paraffin block	Lecture Practice	Seta Toyono Nakatomi Kataoka	
10-11	Immunohistochemistry: Detection target protein in section.	Lecture Practice	Seta Toyono Nakatomi Kataoka	
12-13	RT-PCR (1): RNA preparation and cDNA synthesis	Lecture Practice	Seta Toyono Nakatomi Kataoka	
14-15	RT-PCR (2): Prepare gene-specific primers and PCR	Lecture Practice	Seta Toyono Nakatomi Kataoka	

2016年度

Anatomy Practice (Advanced course) (Anatomy Practice (Advanced course))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業の概要

【Language】 English and Japanese

This course deals with the basis of fundamental molecular biological analysis. It also enhances the development of students' skill in carrying out molecular biological experiment.

学生の到達目標

The goals of this course are to

- (1) be able to understand molecular biological analysis,
- (2) be able to carry out PCR cloning
- (3) be able to carry out transfection
- (4) be able to carry out cell culture
- (5) be able to carry out luciferase assay

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Usual performance score	60%
experimental performance in the lab	40%

その他

2016年度

Anatomy Practice (Advanced course) (Anatomy Practice (Advanced course))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Introduction	Lecture	Seta Toyono Nakatomi Kataoka	
2-3	PCR Cloning (1): PCR	Lecture Practice	Seta Toyono Nakatomi Kataoka	
4-5	PCR Cloning (2): TA cloning	Lecture Practice	Seta Toyono Nakatomi Kataoka	
6-7	PCR cloning (3): Transformation of plasmid DNA into E coli	Lecture Practice	Seta Toyono Nakatomi Kataoka	
8-9	Transfection (1): Introduction of gene transfer technology	Lecture Practice	Seta Toyono Nakatomi Kataoka	
10-11	Transfection (2): Expression vector transfect into cultured cells	Lecture Practice	Seta Toyono Nakatomi Kataoka	
12-13	Luciferase assay (1): Introduction of luciferase assay	Lecture Practice	Seta Toyono Nakatomi Kataoka	
14-15	Luciferase assay (2): Promotor analysis using luciferase assay	Lecture Practice	Seta Toyono Nakatomi Kataoka	

2016年度

Anatomy Practice (Anatomy Practice)

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業の概要

【Language】 English and Japanese

The aim of this course is help students acquire the necessary skills and knowledge needed to achieve student ' research.

学生の到達目標

The goals of this course are to

- (1) be able to construct research plan,
- (2) be able to understand and explain research methods
- (3) be able to discuss data from results

テキスト

出) _____ 著) _____

参考書

出) _____ 著) _____

成績評価方法・基準

評価項目	割合
Usual performance score	60%
experimental performance in the lab	40%

その他

2016年度

Anatomy Practice (Anatomy Practice)

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Introduction	Lecture	Seta Toyono Nakatomi Kataoka	
2-3	Cell culture of T1R1 expressing cell (1): Cloning T1R1 gene	Lecture Practice	Seta Toyono Nakatomi Kataoka	
4-5	Cell culture of T1R1 expressing cell (2): Construction of T1R1 expression vector	Lecture Practice	Seta Toyono Nakatomi Kataoka	
6-7	Cell culture of T1R1 expressing cell (3): Transfection expression vector into cultured cells	Lecture Practice	Seta Toyono Nakatomi Kataoka	
8-9	Cell culture of T1R1 expressing cell (2):	Lecture Practice	Seta Toyono Nakatomi Kataoka	
10-11	Promotor assay of T1R1 gene (1): Construct reporter vector for T1R1 gene	Lecture Practice	Seta Toyono Nakatomi Kataoka	
12-13	Promotor assay of T1R1 gene (2): Promotor analysis using luciferase assay	Lecture Practice	Seta Toyono Nakatomi Kataoka	
14-15	Review	Lecture Practice	Seta Toyono Nakatomi Kataoka	

2016年度

Anatomy Advanced course (Anatomy Advanced course)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research)/Elective	単位数	2
授業方法	演習	時間数	30	曜日	火曜日	時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業の概要

【Language】 Japanese

The aim of this course is to help students acquire an understanding and introducing articles about current topics of life sciences.

学生の到達目標

The goals of this course are to

- (1) be able to read scientific articles logically
- (2) be able to understand and review articles about life sciences
- (3) be able to introduce articles to let the audience understand the content

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Usual performance score	60%
experimental performance in the lab	40%

その他

Textbooks and Reference Books : Choose an article that you would like to introduce and discuss with the members

2016年度

Anatomy Advanced course (Anatomy Advanced course)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research)/Elective	単位数	2
授業方法	演習	時間数	30	曜日	火曜日	時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Understand the article and introduce it including the background of the study	Lecture and Practice	Seta Toyono Nakatomi Kataoka	Choose a topic and prepare for presentation

2016年度

Physiology Practice (Physiology Practice)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ono K.						
担当教員	小野 堅太郎、人見 涼露						

授業の概要

【Language】 English and Japanese

In this course, you will learn and practice basic knowledge and skills about studies for thirsty, oral dryness, salivary functions and pain mechanisms. Under the management by supervisors, you will carry out animal behavior analyses, preparation of brain slices, cell dissociation, molecular biological techniques, immunohistochemistry, intracellular dynamics analysis and electrophysiology, based on your research theme.

学生の到達目標

1. To develop techniques of behavioral analysis in thirsty and oral dry.
2. To develop techniques of behavioral analysis in pain.
3. To develop techniques of brain slices.
4. To develop techniques of patch-clamp recording.
5. To develop techniques of immunohistochemistry.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
course attendance	30%
report	70%

その他

2016年度

Physiology Practice (Physiology Practice)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ono K.						
担当教員	小野 堅太郎、人見 涼露						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation	Lecture	Ono Hitomi	Review of practices
2-4	Animal behavior analyses To learn animal handling and behavioral analyses	Practice	Ono Hitomi	Review of practices
5-7	Brain slice preparation To learn how to make slice preparation of theist centers and electrophysiological recordings	Practice	Ono Hitomi	Review of practices
8-10	Making of oral ulcer model To learn how to make orofacial pain models and its evaluation of pain	Practice	Ono Hitomi	Review of practices
10-15	Analyses of signal transduction in pain	Practice	Ono Hitomi	Review of practices

2016年度

Physiology Practice (Physiology Practice)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ono K.						
担当教員	小野 堅太郎、人見 涼露						

授業の概要

【Language】 English and Japanese

In this course, you will learn and practice basic knowledge and skills about studies for thirsty, oral dryness, salivary functions and pain mechanisms. Under the management by supervisors, you will carry out animal behavior analyses, preparation of brain slices, cell dissociation, molecular biological techniques, immunohistochemistry, intracellular dynamics analysis and electrophysiology, with high reliability.

学生の到達目標

1. To improve techniques of behavioral analysis in thirsty and oral dry.
2. To improve techniques of behavioral analysis in pain.
3. To improve techniques of brain slices.
4. To improve techniques of patch-clamp recording.
5. To improve techniques of immunohistochemistry.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
course attendance	30%
report	70%

その他

2016年度

Physiology Practice (Physiology Practice)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ono K.						
担当教員	小野 堅太郎、人見 涼露						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-3	Experiments for water drinking To learn how to inject drinking-inducible drugs and observe the drinking behavior	Practice	Ono Hitomi	Review of practices
4-7	Salivary secretion To measure salivary secretion following injection of saliva-inducible drugs	Practice	Ono Hitomi	Review of practices
8-10	Oral mucositis and pain To learn pain mechanism in oral ulcer model	Practice	Ono Hitomi	Review of practices
11-13	Analysis of pain-related behaviors To observe behaviors following application of pain-inducible drugs	Practice	Ono Hitomi	Review of practices
14-15	Analyses of signal transduction in pain To learn pain mechanisms	Practice	Ono Hitomi	Review of practices

2016年度

Physiology Practice (Physiology Practice)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日	火曜日	時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ono K.						
担当教員	小野 堅太郎、人見 涼露						

授業の概要

【Language】 English and Japanese

In this course, you will learn how to analyze data and describe manuscripts for studies for thirsty, oral dryness, salivary functions and pain mechanisms. In necessary, you will perform additional experiments.

学生の到達目標

1. To develop manuscripts for thirsty and oral dry.
2. To develop manuscripts for pain.
3. To develop manuscripts for salivary secretion.
4. To improve research ability

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
course attendance	30%
report/presentation	70%

その他

2016年度

Physiology Practice (Physiology Practice)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日	火曜日	時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ono K.						
担当教員	小野 堅太郎、人見 涼露						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-2	Analyses of animal behaviors To analyze and consider behavioral results	Practice	Ono Hitomi	Review of practices
3-4	Analyses of salivary secretion To analyze and consider results of salivary secretion	Practice	Ono Hitomi	Review of practices
5-8	Analyses of pain signaling To analyze and consider results from pain models	Practice	Ono Hitomi	Review of practices
9-15	Research presentation	Practice	Ono Hitomi	Review of practices

2016年度

Physiology Division Colloquium (Physiology Division Colloquium)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) /	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hitomi S						
担当教員	人見 涼露、小野 堅太郎						

授業の概要

You can increase scientific information and understand recent research trend, related to oral physiology, by reading and presenting English-language journals in turns.

学生の到達目標

1. To develop reading skill of English-language journals
2. To develop presentation skill
3. To develop an ability to criticize the journals
4. To understand the background on own research field

テキスト

Journals for presentation should be selected by each one.
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
oral presentations	70%
attendance	30%

その他

At every time, we are waiting for your visits about your study-counsel and advices at our departments in the 10th floor of Faculty Building.

2016年度

Physiology Division Colloquium (Physiology Division Colloquium)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) /	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hitomi S						
担当教員	人見 涼露、小野 堅太郎						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	English-language journals To learn the background and future prospect of own research work, current topics and so on	Reading and presenting English-language journals in turns	Ono Hitomi	Pre- and post- reading of journals

2016年度

Molecular and Cell Biology Training Program (Basic Class) (Molecular and Cell Biology Training Program (Basic Class))

開講年次	1 ~ 2 grades	期区分	通年	科目	Main subject (Basic)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

授業の概要

【Language】 English and Japanese

In order to understand the life science, you will understand the principles of the important molecular biology techniques and perform the experiments to obtain the results.

学生の到達目標

1. You can perform cell culture.
2. You can handle mice and prepare tissue or cells from mice.
3. You can prepare RNA or protein from tissue or cells.
4. You can understand the principles of the RT-PCR, and perform it.
5. You can understand the principles of the Western blotting, and perform it.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
*1	100%

*1 Evaluate your presentation and content in the data at the meetings once a month.

その他

You can use the protocols in our laboratory. If you would like to buy protocol books interested in, we suggest which one is best.

2016年度

Molecular and Cell Biology Training Program (Basic Class) (Molecular and Cell Biology Training Program (Basic Class))

開講年次	1 ~ 2 grades	期区分	通年	科目	Main subject (Basic)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Orientation An overview of this lecture, and to learn about the basis of molecular biology.	Lecture	Jimi E	Review of lecture
3,4	Basis of cell culture I Cell handling How to prepare the culture media	Lecture practice	Jimi E	Preparation about cell culture
5,6	Basis of cell culture II Cell passage Cell stock	Lecture practice	Jimi E	Review about cell culture
7,8	How to handle mice I Basis of mouse handling Treatment with drugs Blood collection	Lecture practice	Jimi E	Review about mouse handling
9,10	How to handle mice II Anesthesia for mice Preparation of thymocytes and bone marrow cells from mice	Lecture practice	Jimi E	Review about the preparation of tissue and cells
11,12	How to handle mice III Preparation of primary osteoblasts Osteoclast differentiation	Lecture practice	Jimi E	Review about the osteoblast or osteoclast culture
13,14	RT-PCR I Preparation of RNA from cells or tissue Measurement of RNA	Lecture practice	Matsubara T	Preparation about the principle of RT-PCR
15,16	RT-PCR II cDNA synthesis Primer design using computer soft	Practice	Matsubara T	Preparation about the principle of primer design
17,18	RT-PCR III PCR Agarose gel electrophoresis	Practice	Matsubara T	Review about the principle of RT-PCR
19,20	Real-time PCR I Principle of Real-time PCR Real-time PCR	Lecture practice	Kokabu S	Preparation about the principle of real-time PCR
21,22	Real-time PCR II Data analysis	Lecture practice	Kokabu S	Review about the data analysis
23,24	Western Blotting I Preparation of protein from tissue or cells Measurement of protein	Lecture practice	Kokabu S	Preparation about the protein preparation
25,26	Western Blotting II SDS-PAGE Transfer to PVDF membrane	Lecture practice	Kokabu S	Preparation about the principle of Western blotting

2016年度

Molecular and Cell Biology Training Program (Basic Class) (Molecular and Cell Biology Training Program (Basic Class))

開講年次	1 ~ 2 grades	期区分	通年	科目	Main subject (Basic)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
27,28	Western Blotting III Blocking Reaction with 1st antibody Reaction with 2nd antibod	Practice	Kokabu S	Preparation about the protocol of Western blotting
29,30	Western Blotting IV Stripping Reblotting	Practice	Kokabu S	Review about Western blotting

2016年度

Molecular and Cell Biology Training Program (Middle Class) (Molecular and Cell Biology Training Program (Middle Class))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Basic)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

授業の概要

【Language】 English and Japanese

In order to understand the life science, you will understand the principles of the important molecular biology techniques and perform the experiments to obtain the results. You further will learn the technique that was developed the techniques learned in the basic course, and developed the ability to get a reliable data.

学生の到達目標

1. You can understand the principles of gene recombination.
2. You can clone a known gene.
3. You can explain the types and principle of gene transfer, and perform them.
4. You can explain the principle of immunoprecipitation, and perform them.
5. You can explain the types of tag, and detect them.
6. You can explain the principle of luciferase assay, and perform them.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
*1	100%

*1 Evaluate your presentation and content in the data at the meetings once a month.

その他

You can use the protocols in our laboratory. If you would like to buy protocol books interested in, we suggest which one is best.

2016年度

Molecular and Cell Biology Training Program (Middle Class) (Molecular and Cell Biology Training Program (Middle Class))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Basic)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	PCR cloning I Gene cloning using PCR method Digestion of vector and PCR products with restriction enzyme	Lecture・practice	Jimi E	Preparation about gene cloning
3,4	PCR cloning II Dephosphorylation of vector by ALP Ligation	Lecture・practice	Jimi E	Preparation about ligation
5,6	PCR cloning III How to prepare competent cells Transformation	Lecture・practice	Jimi E	Preparation about transformation
7,8	PCR cloning IV Pick up colonies Mini-scale culture	Lecture・practice	Jimi E	Review of the previous step
9,10	PCR cloning V Mini-preparation Agarose gel electrophoresis	Lecture・practice	Jimi E	Preparation about mini-scale culture
11,12	PCR cloning VI Midi-preparation Purification of plasmid	Lecture・practice	Jimi E	Preparation about Midi-prep
13,14	Gene function analysis I Types of gene transfer Gene transfer using lipofection method	Lecture・practice	Jimi E	Preparation about gene transfer
15,16	Gene function analysis II Point mutation based on PCR Screening	Lecture・practice	Matsubara T	Preparation about gene transfer
17,18	Gene function analysis III Principle of luciferase assay Measurement of luciferase activity by luminometer	Lecture・practice	Matsubara T	Preparation about luciferase assay
19,20	Gene function analysis IV Generation of dominant negative form or constitutive active form for gene transfer	practice	Matsubara T	Preparation about dominant negative form and constitutive active form
21,22	Immunoprecipitation I Preparation of protein from cells Measurement of protein Immunoprecipitation	Lecture・practice	Kokabu S	Preparation about handling of protein
23,24	Immunoprecipitation II SDS-PAGE Transfer to PVDF membrane Blocking	practice	Kokabu S	Preparation about immunoprecipitation

2016年度

Molecular and Cell Biology Training Program (Middle Class) (Molecular and Cell Biology Training Program (Middle Class))

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Basic)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
25,26	Immunoprecipitation III Reaction with 1st antibody Reaction with 2nd antibody	practice	Kokabu S	Review about immunoprecipitation
27,28	Tagged I Kind and principle of tag Cloning your interesting gene into FLAG-, HA-, Myc-,GFP-tagged vector	Lecture・practice	Kokabu S	Preparation of the kind and principle of Tag
29,30	Tagged II Detection of tagged protein by anti-tag antibody	practice	Kokabu S	Review of immunoprecipitation

2016年度

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Basic)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

授業の概要

【Language】 English and Japanese

In order to understand the life science, you will understand the principles of the important molecular biology techniques and perform the experiments to obtain the results. You further will learn the technique related to bone biology and perform them. You also will learn oral presentation and writing article.

学生の到達目標

1. You can understand the principles of viral vector and perform gene transfer using retroviral vector.
2. You can explain the principle of chromatin immunoprecipitation, and perform it.
3. You can explain the types and principle of genetically modified mice.
4. You can explain the principle of flow cytometry, and perform it.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
*1	100%

*1 Evaluate your presentation and content in the data at the meetings once a month.

その他

You can use the protocols in our laboratory. If you would like to buy protocol books interested in, we suggest which one is best.

2016年度

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Basic)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Gene transfer using viral vector I Principle of retroviral vector Generation of retroviral vector 1 • Digestion of vector and PCR products by restriction enzyme • Dephosphorylation of vector • Ligation	Lecture・practice	Matsubara T	Preparation about the principle of retroviral vector
3,4	Gene transfer using viral vector II Generation of retroviral vector 2 • Preparation of competent cells • Transformation	Lecture・practice	Matsubara T	Preparation about the generation of retroviral vector
5,6	Gene transfer using viral vector III Generation of retroviral vector 3 • Pick up colonies • Mini-scale culture	Lecture	Matsubara T	Preparation about the generation of retroviral vector
7,8	Gene transfer using viral vector IV Generation of retroviral vector 4 • Mid-scale culture • Preparation of packaging cell	Practice	Matsubara T	Preparation about the gene transfer using retroviral vector
9,10	Gene transfer using viral vector V Generation of retroviral vector 5 • Collection of viral supernatant • Measurement of MOI	Practice	Matsubara T	Preparation about the gene transfer using retroviral vector
11,12	Gene transfer using viral vector VI Generation of retroviral vector 6 Gene transfer by retroviral vector containing GFP • Detection of GFP expression by microscop	Lecture	Matsubara T	Preparation about the gene transfer using retroviral vector
13,14	Chromatin immunoprecipitation (ChIP) I Principle of ChIP	Lecture	Kokabu S	Preparation about the principle of ChIP
15,16	Chromatin immunoprecipitation II Preparation of cells and cross-linking Immunoprecipitation	Practice	Kokabu S	Preparation about ChIP
17,18	Chromatin immunoprecipitation III PCR	Practice	Kokabu S	Review about ChIP
19,20	Genetically modified mice I Principle of transgenic mice Principle of knockout mice	Lecture	Jimi E	Preparation about transgenic or knockout mice
21,22	Genetically modified mice II Principle of knockin mice Principle of conditional KO mice	Lecture	Jimi E	Preparation about knockin or conditional knockout mice
23,24	Analysis of the phenotype of the genetically modified mice I Genotyping by PCR Phenotype analyzed by histology	Lecture・practice	Jimi E	Preparation about mouse genotyping

2016年度

開講年次	2 ~ 3 grades	期区分	通年	科目	Main subject (Basic)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
25,26	Analysis of the phenotype of the genetically modified mice II Preparation of primary osteoblasts Osteoclast differentiation	Practice	Jimi E	Preparation about osteoblast and osteoclast culture
27,28	Analysis of the phenotype of the genetically modified mice III Analysis of lymphocyte markers by flow cytometry	Practice	Jimi E	
29,30	Analysis of the phenotype of the genetically modified mice IV	Practice	Jimi E	

2016年度

Bone Journal Club (Bone Journal Club)

開講年次	1 ~ 3 grades	期区分	通年	科目	Main subject (Research)/Elective	単位数	2
授業方法	演習	時間数	30	曜日	月曜日	時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

授業の概要

【Language】*English , Japanese

We read the literature describing the current topics of bone metabolism and molecular biology to understand the trends of important, up-to-date research.

学生の到達目標

1. You can read English literature and understand its content.
2. You can understand the experimental procedures in the literature.
3. You can evaluate the contents of the literature objectively.
4. You can understand the research background.
5. You can introduce the other person to understand easily the contents of the literature.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Selection of article	50%
Oral presentation	50%

その他

Choose an article that you would like to share the content and discuss about it with members.

2016年度

Bone Journal Club (Bone Journal Club)

開講年次	1 ~ 3 grades	期区分	通年	科目	Main subject (Research)/Elective	単位数	2
授業方法	演習	時間数	30	曜日	月曜日	時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Jimi E.						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
30	Understand the content and trends of important, up-to-date research in bone biology and molecular biology area and explained their importance to other persons.	Lecture and practice including presentation and discussion.	Jimi E Kokabu S Matsubara T	Choose a topic and prepare for presentation.

2016年度

Oral Pathology (Oral Pathology)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	4
授業方法	講義	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Min Zhang						
担当教員	張 皿、矢田 直美						

授業の概要

Provide the latest knowledge and information about oral and maxillofacial diseases, to serve as a basis for the future studies on mechanism, diagnosis and treatment of those diseases.

学生の到達目標

1. Acquire the latest information and expertise in caries and dentin-pulp complex disease.
2. Acquire the latest information and expertise in periapical lesion.
3. Acquire the latest information and expertise in periodontal lesion.
4. Acquire the latest information and expertise in diseases of jaw and temporomandibular joint.
5. Acquire the latest information and expertise in oral mucosal diseases.
6. Acquire the latest information and expertise in oral cancer and premalignant lesion.
7. Acquire the latest information and expertise in odontogenic tumors and cystic lesions.
8. Acquire the latest information and expertise in non-odontogenic tumors.
9. Acquire the latest information and expertise in non-neoplastic salivary gland diseases.
10. Acquire the latest information and expertise in salivary gland tumors.

テキスト

出) _____ 著) _____

参考書

出) _____ 著) _____

成績評価方法・基準

評価項目	割合
Report	100%

その他

2016年度

Oral Pathology (Oral Pathology)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	4
授業方法	講義	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Min Zhang						
担当教員	張 皿、矢田 直美						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-3	Obtain the latest knowledge on caries and dentin-pulp complex disease from the covered topics.	lecture	Zhang	report
4-6	Obtain the latest knowledge on periapical lesion from the covered topics.	lecture	Zhang	report
7-9	Obtain the latest knowledge on periodontal lesion from the covered topics.	lecture	Zhang	report
10-12	Obtain the latest knowledge on diseases of jaw and temporomandibular joint from the covered topics.	lecture	Zhang	report
13-15	Obtain the latest knowledge on oral mucosal diseases from the covered topics.	lecture	Zhang	report
16-18	Obtain the latest knowledge on oral cancer and premalignant lesion from the covered topics.	lecture	Yada	report
19-21	Obtain the latest knowledge on odontogenic tumors and cystic lesions from the covered topics.	lecture	Yada	report
22-24	Obtain the latest knowledge on non-odontogenic tumors from the covered topics.	lecture	Yada	report
25-27	Obtain the latest knowledge on non-neoplastic salivary gland diseases from the covered topics.	lecture	Yada	report
28-30	Obtain the latest knowledge on salivary gland tumors from the covered topics.	lecture	Yada	report

2016年度

Practice of Oral Pathology (basic course) (Practice of Oral Pathology (basic course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Min Zhang						
担当教員	張 皿						

授業の概要

Learn the basic knowledge and skills required for carrying out a study on the main theme of research at our laboratory. Teach the knowledge and skills of the preparation of histopathologic specimens, histochemical, immunohistochemical and ultrastructural analyses. According to the theme of the postgraduate work, teach the required knowledge and skills of biochemical, molecular, microbiological and immunological techniques.

学生の到達目標

1. Acquire expertise in the preparation of histopathologic specimen
2. Acquire expertise in the preparation of histochemical specimen
3. Acquire expertise in the preparation of immunohistochemical specimen
4. Acquire expertise in the preparation of electron microscopic specimen
5. (According to the theme) acquire expertise in cell culture
6. (According to the theme) acquire expertise in extraction of DNA and RNA
7. (According to the theme) acquire expertise in extraction of protein
8. (According to the theme) acquire expertise in electrophoresis and western blotting
9. (According to the theme) acquire expertise in gene cloning and recombination

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Report	100%

その他

2016年度

Practice of Oral Pathology (basic course) (Practice of Oral Pathology (basic course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Min Zhang						
担当教員	張 皿						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Practice of the preparation of histopathologic specimen	practice	Zhang	report
3,4	Practice of the preparation of histochemical specimen	practice	Zhang	report
5,6	Practice of the preparation of immunohistochemical specimen	practice	Zhang	report
7,8	Practice of the preparation of electron microscopic specimen	practice	Zhang	report
9,10	Practice of cell culture	practice	Zhang	report
11	Practice of the extraction of DNA and RNA	practice	Zhang	report
12	Practice of the extraction of protein	practice	Zhang	report
13	Practice of RT-PCR and agarose gel electrophoresis	practice	Zhang	report
14	Practice of protein electrophoresis and western blotting	practice	Zhang	report
15	Practice of gene cloning and recombination	practice	Zhang	report

2016年度

Practice of Oral Pathology (advanced course)

(Practice of Oral Pathology (advanced course))

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Matsuo K.						
担当教員	松尾 拓						

授業の概要

Promote the study on the given theme of research.

Train to produce reliable data in experiments using histopathologic, histochemical, immunohistochemical, ultra-structural, biological, molecular, microbial, immunological techniques.

学生の到達目標

1. Improve the skill in preparation of histopathologic specimen.
2. Obtain data from histochemical specimens for a research paper.
3. Obtain data from immunohistochemical specimens for a research paper.
4. Obtain data from electron microscopic specimens for a research paper.
5. Obtain data from cell culture experiments for a research paper.
6. Obtain data from extracted DNA and RNA for a research paper.
7. Obtain data from extracted protein for a research paper.
8. Increase reliability of the experimental data.
9. Improve the skills in designing experiments and developing research.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Report	100%

その他

2016年度

Practice of Oral Pathology (advanced course)

(Practice of Oral Pathology (advanced course))

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Matsuo K.						
担当教員	松尾 拓						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Analyze data obtained from microscopic specimens. Discuss and summarize them.	Practice	Matsuo	report
3,4	Analyze data obtained from electron microscopic specimens. Discuss and summarize them.	Practice	Matsuo	report
5,6	Analyze data obtained from cell culture. Discuss and summarize them.	Practice	Matsuo	report
7,8	Analyze data obtained from experiments using biochemical and molecular techniques. Discuss and summarize them.	Practice	Matsuo	report
9-11	Presentation of research findings	Practice	Matsuo	report
12-15	Learn how to write a research paper and come up with the outline of thesis paper.	Practice	Matsuo	report

2016年度

Colloquium of Oral Pathology (Colloquium of Oral Pathology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Matsuo K.						
担当教員	松尾 拓						

授業の概要

Read intensively the related literatures and discuss their contents to understand new trends of general pathological and oral pathological research. Also present each participant ' s research results and discuss them.

学生の到達目標

1. Improve the ability to understand exactly the meaning of English literatures.
2. Understand exactly the contents of research paper and presentation.
3. Improve the ability to assess research.
4. Understand background and trend of research.
5. Improve the skills in research presentation.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Report	100%

その他

2016年度

Colloquium of Oral Pathology (Colloquium of Oral Pathology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Matsuo K.						
担当教員	松尾 拡						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation. Explanation of the outline of research performed at the division of Oral Pathology and discussion.	practice	Matsuo	report
2,3	Know the recent trend of research on premalignant lesion and carcinoma in situ, and discuss it.	practice	Matsuo	report
4	Introduce and discuss participant ' s research and related literatures (I).	practice	Matsuo	report
5,6	Know the recent trend of research on tumor marker, and discuss it.	practice	Matsuo	report
7	Introduce and discuss participant ' s research and related literatures (II).	practice	Matsuo	report
8,9	Know the recent trend of research on wound healing, and discuss it (I).	practice	Matsuo	report
10	Introduce and discuss participant ' s research and related literatures (III).	practice	Matsuo	report
11,12	Know the recent trend of research on wound healing, and discuss it (II).	practice	Matsuo	report
13	Introduce and discuss participant ' s research and related literatures (IV).	practice	Matsuo	report
14,15	Summarize the discussion about participants ' research, and discuss the future development of the research.	practice	Matsuo	report

2016年度

Clinical Diagnostic Pathology (Clinical Diagnostic Pathology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	4
授業方法	講義	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Matsuo K.						
担当教員	松尾 拡、矢田 直美						

授業の概要

Teach clinical diagnostic pathology to perform a diagnostic task as a routine work at the division of Oral Pathology. Also provide the latest information on oral and maxillofacial diseases, focusing on the pathological diagnosis.

学生の到達目標

1. Learn and practice pathological anatomy (autopsy).
2. Learn and practice biopsy diagnosis.
3. Learn handling of the surgical materials and practice diagnosis.
4. Learn and practice cytological diagnosis.
5. Learn and practice intraoperative rapid diagnosis.
6. Learn and practice preparation of histopathologic specimens.
7. Learn and practice histochemical and immunohistochemical staining.
8. Acquire expertise in pathological diagnosis of oral and maxillofacial diseases.
9. Acquire expertise in differential diagnosis of benign and malignant tumors.

テキスト

出) 著)

参考書

Pathologic basis of disease, 8th edition
出) Elsevier 著) Robbins & Cotran

Pathology and Genetics of Tumours of the Head and Neck (IARC)
出) WHO Classification of Tumours 著)

成績評価方法・基準

評価項目	割合
Report	100%

その他

2016年度

Clinical Diagnostic Pathology (Clinical Diagnostic Pathology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	4
授業方法	講義	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Matsuo K.						
担当教員	松尾 拡、矢田 直美						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Learn outline of human pathology	lecture	Matsuo	report
3-5	Learn outline of pathological anatomy (autopsy)	lecture	Matsuo	report
6-8	Learn outline of biopsy	lecture	Matsuo	report
9-11	Learn outline of handling of the surgical materials	lecture	Matsuo	report
12-14	Learn outline of cytological diagnosis	lecture	Yada	report
15-17	Learn outline of intraoperative rapid diagnosis	lecture	Yada	report
18-20	Learn outline of the preparation of histopathologic specimens	lecture	Yada	report
21-23	Learn outline of histochemical and immunohistochemical staining	lecture	Yada	report
24-26	Learn outline and specificity of pathological diagnosis of oral and maxillofacial diseases, and also obtain the latest specific information on oral pathological diagnosis.	lecture	Matsuo Yada	report
27-30	Learn differential diagnosis of benign and malignant tumors.	lecture	Matsuo Yada	report

2016年度

Practice of Clinical Diagnostic Pathology (Practice of Clinical Diagnostic Pathology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yada N.						
担当教員	矢田 直美						

授業の概要

Acquire skills in clinical diagnostic pathology, and develop an ability to make pathological diagnosis

学生の到達目標

1. Acquire the skill of handling biopsy materials.
2. Acquire the skill of handling surgical materials.
3. Acquire the skill of cytological materials.
4. Acquire the skill of materials of intraoperative rapid diagnosis.
5. Experience autopsy and expand the knowledge of it.
6. Acquire expertise in diagnosis of main diseases of oral and maxillofacial region.
7. Acquire expertise in diagnosis of main general diseases.
8. Acquire the skill in pathological diagnostic report writing.
9. Acquire the skill in preparing manuscript of case report.

テキスト

出) 著)

参考書

Pathologic basis of disease, 8th

出)Elsevier

著)Robbins & Cotran

Pathology and Genetics of Tumours of the Head and Neck (IARC)

出)WHO Classification of Tumours 著)

成績評価方法・基準

評価項目	割合
Report	100%

その他

2016年度

Practice of Clinical Diagnostic Pathology (Practice of Clinical Diagnostic Pathology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yada N.						
担当教員	矢田 直美						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	orientation	practice	Yada	report
2,3	Learn and practice the procedure of handling of biopsy and surgical materials.	practice	Yada	report
4,5	Learn and practice the procedure of handling of cytological materials.	practice	Yada	report
6	Learn and practice the procedure of handling of materials of intraoperative rapid diagnosis.	practice	Yada	report
7	Learn and practice the procedure of autopsy.	practice	Yada	report
8,9	Learn outline of main diseases of oral and maxillofacial region and practice diagnosis.	practice	Yada	report
10,11	Learn outline of main general diseases and practice diagnosis.	practice	Yada	report
12,13	Learn and practice the pathological diagnostic report writing.	practice	Yada	report
14,15	Learn and practice the preparation of manuscript of case report.	practice	Yada	report

2016年度

Infectious Diseases (Infectious Diseases)

開講年次	1-2grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nishihara T						
担当教員	西原 達次、有吉 渉、沖永 敏則						

授業の概要

You can obtain novel information and knowledge concerning life sciences for infection and immunity, including “ virulence factors ” , “ apoptosis ” , and “ cell cycle ” in cell biology. At this course, you should perform a group study for individual themes, “ periodontopathic bacteria ” and “ bone metabolism disorders”, etc.

学生の到達目標

To obtain novel information and knowledge for

- Factors responsible for infection
- Virulence factors
- Host defense in oral lesion
- Immune system
- Cytokine
- Inflammatory mediators
- Intracellular signaling
- Regulation of transcription
- Apoptosis
- Cell cycle

テキスト

Recent reports in our laboratory Publications and reference papers concerning this lecture

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
reports after the group studies and lectures	100%

その他

At any time, we accept your visits about your study-counsel and advices at our department in the 11rd floor of main building.

2016年度

Infectious Diseases (Infectious Diseases)

開講年次	1-2grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nishihara T						
担当教員	西原 達次、有吉 渉、沖永 敏則						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Outline of infectious diseases Fundamental knowledge for molecular biology and microbiology.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
2	Virulence factors Knowledge for adhesion and invasiveness of pathogens.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
3	Virulence factors Knowledge for exotoxin and endotoxin produced by pathogenic bacteria.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
4	Immune systems in oral lesion Host defense mediated by saliva and humoral immunity in oral lesion.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
5	Immune systems in oral lesion Host defense mediated by cellular immunity in oral lesion.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
6	Host Defense Structure and function of cytokines.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
7	Host Defense Interaction between innate and acquired immunity.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
8	Molecular biology for host defense against infection Role of inflammasome in inflammatory response.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
9	Molecular biology for host defense against infection Intracellular signaling induced by pathogens.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
10	Molecular biology for host defense against infection Knowledge for transcriptional factors involved in host defense.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
11	Histopathology for infection Histologic features of infected tissues.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
12	Apoptosis Molecular mechanisms of programmed cell death induced by pathogens.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
13	Cell cycle Effects on cell cycle of host by virulence factors.	Group study	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
14	Periodontopathic bacteria Biological effects of periodontopathic bacteria on host cells.	Lecture	Nishihara Ariyoshi Okinaga	Pre-reading of textbook
15	Bone metabolism disorders Mechanisms of bone turnover and metabolic bone diseases.	Lecture	Nishihara Ariyoshi Okinaga	Pre-reading of textbook

2016年度

Infectious Diseases (Infectious Diseases)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) /Elec	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Okinaga T						
担当教員	沖永 敏則、有吉 渉、西原 達次						

授業の概要

You can study novel issue of infectious diseases and immunity through scientific papers, which were recently published on scientific journal concerning infection and immunity. At this course, you should explain the objects, methods, results and discussion in detail and we can share novel knowledge, which require to your experiments, through our discussion on this seminar.

学生の到達目標

- Bring up your ability on reading scientific papers
- Bring up your ability on critically thinking
- Bring up your ability on logically thinking

テキスト

Novel scientific papers, Nature, Cell, Science, etc
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
oral presentations and discussions	100%

その他

At any time, we accept your visits about your study-counsel and advices at our department in the 11rd floor of main building.

2016年度

Infectious Diseases (Infectious Diseases)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) /Elec	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Okinaga T						
担当教員	沖永 敏則、有吉 渉、西原 達次						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	1. Understanding the object and details of novel experiments 2. Discussion about experimental view	Introduction of novel paper and discussion	Nishihara Ariyoshi Okinaga	Reading paper intensively and investigating issues on the area related your experiments

2016年度

Infectious Diseases (Infectious Diseases)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) /Elec	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ariyoshi W						
担当教員	有吉 渉、沖永 敏則、西原 達次						

授業の概要

You can share novel information and knowledge concerning infection and immunity. At this course, you should explain the objects, methods and results of your experiments. The instructors point out the critical points, which require to your experiments, through our discussion on this seminar.

学生の到達目標

- Bring up your ability on presentation about the experimental data
- Bring up your ability on critically thinking
- Bring up your ability on logically thinking

テキスト

Research lab notebook and reference papers concerning your project
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
oral presentations and discussions	100%

その他

At any time, we accept your visits about your study-counsel and advices at our department in the 11rd floor of main building.

2016年度

Infectious Diseases (Infectious Diseases)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) /Elec	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ariyoshi W						
担当教員	有吉 渉、沖永 敏則、西原 達次						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	1. Understanding the background, methods and results of your experiments 2. Discussion about experimental data	Presentation about the data of your experiments and discussion	Nishihara Ariyoshi Okinaga	Reading paper intensively and investigating issues on the area related your experiments

2016年度

Pharmacology (Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業の概要

【Language】 Japanese

In the present, the elderly is administrated a large number of drugs for systemic disease. In this course, you will study the hematologic drugs (anticoagulant drugs and antiplatelet drugs) and central nerves system drugs (antidepressants, etc.).

学生の到達目標

1. You will administer the proper drug to the patient with systemic disease.
2. You will treat the patient with systemic disease with safety.
3. You will explain the drugs used in systemic disease.

テキスト

出) _____ 著) _____

参考書

出) _____ 著) _____

成績評価方法・基準

評価項目	割合
oral presentation	40%
discussions	10%
attendance	50%

その他

2016年度

Pharmacology (Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Outline of hematologic drugs and central nervous system drugs	Lecture	Takeuchi Ohsumi Higashi	
2	Hematologic drugs 1 You will obtain knowledge of anticoagulant drug (heparin).	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
3	Hematologic drugs 2 You will obtain knowledge of anticoagulant drug (low molecular weight heparin).	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
4	Hematologic drugs 3 You will obtain knowledge of anticoagulant drug (warfarin).	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
5	Hematologic drugs 4 You will obtain knowledge of antiplatelet drug (aspirin).	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
6	Hematologic drugs 5 You will obtain knowledge of new antiplatelet drugs .	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
7	Hematologic drugs 6 You will study the things to be careful about the patients who take hematologic drugs in dental treatment.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
8	Hematologic drugs 7 You will study the things to be careful about the patients who take hematologic drugs in dental treatment.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
9	Central nerves system drugs 1 You will obtain knowledge of mental disorder.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
10	Central nerves system drugs 2 You will obtain knowledge of drugs used in Parkinsonism.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
11	Central nerves system drugs 3 You will obtain knowledge of antidepressants.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
12	Central nerves system drugs 4 You will obtain knowledge of drugs used in Alzheimer disease.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
13	Central nerves system drugs 5 You will obtain knowledge of drugs used in epilepsy.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
14	Central nerves system drugs 6 You will study the drugs used in the elderly.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
15	Summary You will study the relationship between dental treatments and hematologic or central nerves system drugs.	Lecture	Takeuchi Ohsumi Higashi	

2016年度

Pharmacology (Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業の概要

【Language】 Japanese

In the present, the elderly is administrated a large number of drugs for systemic disease. In this course, you will study the cardiovascular drugs (drugs used in hypertension, etc.) and central nerves system drugs (antidepressants, etc.).

学生の到達目標

1. You will administer the proper drug to the patient with systemic disease.
2. You will treat the patient with systemic disease with safety.
3. You will explain the drugs used in systemic disease.

テキスト

出) (著)

参考書

Goodman & Gilman 's the Pharmacological Basis of Therapeutics
出) (著)

成績評価方法・基準

評価項目	割合
oral presentation	40%
discussions	10%
attendance	50%

その他

2016年度

Pharmacology (Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Outline of cardiovascular drugs and central nervous system drugs	Lecture	Takeuchi Ohsumi Higashi	
2	Cardiovascular drugs 1 You will obtain knowledge of drugs used in hypertension.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
3	Cardiovascular drugs 2 You will obtain knowledge of drugs used in hypertension.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
4	Cardiovascular drugs 3 You will obtain knowledge of drugs used in heart failure.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
5	Cardiovascular drugs 4 You will obtain knowledge of drugs used in the treatment of angina pectoris.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
6	Cardiovascular drugs 5 You will obtain knowledge of antiarrhythmic drugs.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
7	Cardiovascular drugs 6 You will study the things to be careful about the patients who take cardiovascular drugs in dental treatment.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
8	Cardiovascular drugs 7 You will study the things to be careful about the patients who take cardiovascular drugs in dental treatment.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
9	Central nerves system drugs 1 You will obtain knowledge of mental disorder.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
10	Central nerves system drugs 2 You will obtain knowledge of antidepressants.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
11	Central nerves system drugs 3 You will obtain knowledge of drugs used in mania.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
12	Central nerves system drugs 4 You will obtain knowledge of drugs used in Alzheimer disease.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
13	Central nerves system drugs 5 You will obtain knowledge of antipsychotic drugs.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
14	Central nerves system drugs 6 You will study alcoholism and drug dependence.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
15	Summary You will study the relationship between dental treatments and cardiovascular drugs or central nerves system drugs.	Lecture	Takeuchi Ohsumi Higashi	

2016年度

Pharmacology (Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi T.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業の概要

【Language】 Japanese

In this course, you will read the literature of drug which has a close relationship with dental treatments and obtain the up-to-date knowledge of drugs. You will study the adverse effects of drugs used in dental treatment.

学生の到達目標

1. You will administer drugs to patients with effectively and safety.
2. You will obtain the up-to-date knowledge of drugs.
3. You will read scientific articles logically.

テキスト

出) (著)

参考書

The antimicrobial stewardship textbook for lifelong continuing education
出) (著)

成績評価方法・基準

評価項目	割合
oral presentation	40%
discussions	10%
attendance	50%

その他

2016年度

Pharmacology (Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi T.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	You will discuss the lecture and practice in this course.	Lecture	Takeuchi Ohsumi Higashi	
2	Antimicrobial drugs 1 You will obtain knowledge of the theory of PK-PD.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
3	Antimicrobial drugs 2 You will obtain knowledge of the theory of PK-PD.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
4	Antimicrobial drugs 3 You will study resistant bacteria.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
5	Antimicrobial drugs 4 You will obtain knowledge of carbapenem antibiotics.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
6	Antiviral drugs You will obtain knowledge of new anti-influenza drugs.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
7	Antiplatelet drugs 1 You will study the coagulation of blood and fibrinolytic system.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
8	Antiplatelet drugs 2 You will obtain knowledge of new antiplatelet drugs.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
9	Antiplatelet drugs 3 You will study the relationship between dental treatment and new antiplatelet drugs.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
10	You will study the guideline for use of the coagulation of blood inhibitors.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
11	Antifungal drugs 1 You will obtain knowledge of antifungal drugs. You will study the application of antifungal drugs in dental treatment.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
12	Antifungal drugs 2 You will study the drug-interaction of antifungal drugs.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
13	Pharmaceuticals for osteoporosis 1 You will obtain knowledge of bisphosphonates.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
14	Pharmaceuticals for osteoporosis 2 You will study the adverse effect of bisphosphonates.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
15	Summary You will study the administration of drugs in dental treatment with safety.	Lecture	Takeuchi Ohsumi Higashi	

2016年度

Pharmacology (Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業の概要

【Language】 Japanese

In this course, you will study the anti-infective drugs (antimicrobial drugs, antifungal drugs and antiviral drugs) and the up-to-date pharmacological therapeutics in infectious disease.

学生の到達目標

1. You will administer the proper anti-infective drug to the patient.
2. You will explain the up-to-date anti-infective drugs.
3. You will administer the anti-infective drugs based on the theory.

テキスト

出) (著)

参考書

The antimicrobial stewardship textbook for lifelong continuing education
出) (著)

成績評価方法・基準

評価項目	割合
oral presentation	40%
discussions	10%
attendance	50%

その他

2016年度

Pharmacology (Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Outline of the anti-infective drugs You will study the outline of the anti-infective drugs.	Lecture	Takeuchi Ohsumi Higashi	
2	Outline of antimicrobial drugs 1 You will study the outline of antimicrobial drugs and resistant bacteria.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
3	Outline of antimicrobial drugs 2 You will obtain knowledge of the theory of PK-PD.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
4	Detailed explanations of antimicrobial drugs 1 You will obtain knowledge of β -lactam antibiotics.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
5	Detailed explanations of antimicrobial drugs 2 You will obtain knowledge of β -lactam antibiotics.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
6	Detailed explanations of antimicrobial drugs 3 You will obtain knowledge of antibiotics except β -lactam antibiotics.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
7	Detailed explanations of antimicrobial drugs 4 You will obtain knowledge of antibiotics except β -lactam antibiotics.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
8	Detailed explanations of antimicrobial drugs 5 You will study of the application of antibiotics in dental treatment.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
9	Detailed explanations of antimicrobial drugs 6 You will obtain knowledge of new quinolone antimicrobial drugs.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
10	Detailed explanations of antimicrobial drugs 7 You will study of the application of new quinolone antimicrobial drugs in dental treatment.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
11	Detailed explanations of antifungal drugs 1 You will obtain knowledge of antifungal drugs.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
12	Detailed explanations of antifungal drugs 2 You will study of the application of antifungal drugs in dental treatment.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
13	Detailed explanations of antiviral drugs 1 You will obtain knowledge of antiviral drugs.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
14	Detailed explanations of antiviral drugs 2 You will study of the application of antiviral drugs in dental treatment.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
15	Summary You will study the administration of the proper anti-infective drug to the patient.	Lecture	Takeuchi Ohsumi Higashi	

2016年度

Journal Club - Current Topics for Drug Discovery - (Journal Club - Current Topics for Drug Discovery -)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) /Elective	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H						
担当教員	竹内 弘、大住 伴子、東 泉						

授業の概要

Understand and introduce articles about current topics of life sciences to provide hints for drug discovery.

学生の到達目標

1. You can read scientific articles logically.
2. You can understand and review articles about basic life science.
3. You can introduce articles about basic life science to let the audience understand the content.

テキスト

Choose an article that you would like to introduce and discuss with the members.

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
oral presentations	70%
Discussions and activities	30%

その他

Anytime, but an appointment is required prior to visit our office.

2016年度

Journal Club - Current Topics for Drug Discovery - (Journal Club - Current Topics for Drug Discovery -)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) /Elective	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H						
担当教員	竹内 弘、大住 伴子、東 泉						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Understand the article and introduce it including the background of the study, discuss about the possible application for drug discovery.	Lecture and Practice including Presentation and Discussion	Takeuchi Ohsumi Higashi	Choose a topic and prepare for presentation.

2016年度

Seminar in Molecular Pharmacology (Seminar in Molecular Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research)/Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業の概要

【Language】 English and Japanese

Learn basic techniques required for pharmacological experiments.

Learn the methods to prepare recombinant protein and examine effects of drugs using it.

学生の到達目標

1. You can explain how to prepare recombinant proteins.
2. You can design and prepare DNA constructs for preparing recombinant proteins.
3. You can prepare recombinant proteins.
4. You can perform in vitro pharmacological experiments using recombinant proteins.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
presentation	40%
Discussions	15%
Attendances	45%

その他

Lecture with writing on the whiteboard. Textbooks will be recommended to referring the course contents.

2016年度

Seminar in Molecular Pharmacology (Seminar in Molecular Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research)/Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation Learn overall process of the examination.	Lecture	Takeuchi Ohsumi	Careful reading of the handout
2	Pre-preparation of bacterial expression DNA construct Learn how to obtain the information of the genes of interest and design the construct.	Practice	Takeuchi Ohsumi Higashi	Recording the results
3	Preparation of bacterial expression DNA construct (1) Learn how to prepare the gene of interest by PCR and the vector for cloning.	Practice	Takeuchi Ohsumi Higashi	Recording the results
4	Preparation of bacterial expression DNA construct (2) Learn how to judge the result of cloning.	Practice	Takeuchi Ohsumi Higashi	Recording the results
5	Confirming expression of recombinant protein (1) Learn how to culture bacteria to induce expression of recombinant protein and prepare sample for analysis of expression.	Practice	Takeuchi Ohsumi Higashi	Recording the results
6	Confirming expression of recombinant protein (2) Learn how to analyze the expression of recombinant protein; SDS-PAGE.	Practice	Takeuchi Ohsumi Higashi	Recording the results
7	Preparation of recombinant protein (1) Learn how to optimize introducing condition in large scale culture for preparing recombinant protein.	Practice	Takeuchi Ohsumi Higashi	Recording the results
8	Preparation of recombinant protein (2) Learn how to purify recombinant protein from the lysate of bacteria.	Practice	Takeuchi Ohsumi Higashi	Recording the results
9	Preparation of recombinant protein (3) Learn how to examine concentration and purity of the prepared protein.	Practice	Takeuchi Ohsumi Higashi	Recording the results
10	In vitro assay using the recombinant protein (1) Learn how to prepare samples for examining binding activity of the prepared protein.	Practice	Takeuchi Ohsumi Higashi	Recording the results
11	In vitro assay using the recombinant protein (2) Learn how to examine binding activity of the prepared protein: SDS-PAGE.	Practice	Takeuchi Ohsumi Higashi	Recording the results
12	In vitro assay using the recombinant protein (3) Learn how to examine enzymatic activity of the prepared protein.	Practice	Takeuchi Ohsumi Higashi	Recording the results
13	In vitro assay using the recombinant protein (4) Learn how to examine effects of drugs on enzymatic activity of the prepared protein.	Practice	Takeuchi Ohsumi Higashi	Recording the results
14	Summarizing the data Summarize your data and prepare for the presentation.	Practice	Takeuchi Ohsumi Higashi	Summarize your results and prepare for the presentation
15	Presentation of the summarized data Present your summarized data and discuss about the result.	Practice	Takeuchi Ohsumi Higashi	Summarize your results and prepare for the presentation

2016年度

Seminar in Cellular and Molecular Pharmacology (Seminar in Cellular and Molecular Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research)/Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業の概要

【Language】English and Japanese

Learn basic techniques required for pharmacological experiments.

Learn the methods to examine effects of drugs using techniques for gene modification and mammalian cell culture.

学生の到達目標

1. You can explain how to control exogenous gene expression in cultured cells.
2. You can design and prepare DNA constructs for gene expression.
3. You can transfect exogenous gene into cultured cells.
4. You can examine effect of drugs using genetically modified cultured cells.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
presentation	40%
Discussions	15%
Attendances	45%

その他

Lecture with writing on the whiteboard. Textbooks will be recommended to referring the course contents.

2016年度

Seminar in Cellular and Molecular Pharmacology (Seminar in Cellular and Molecular Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research)/Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation Learn overall process of the examination.	Lecture	Takeuchi Ohsumi	Careful reading of the handout
2	Pre-preparation of mammalian expression DNA construct Learn how to obtain the information of the genes of interest and design the construct.	Practice	Takeuchi Ohsumi Higashi	Recording the results
3	Preparation of mammalian expression DNA construct (1) Learn how to prepare the interest gene and the vector for cloning.	Practice	Takeuchi Ohsumi Higashi	Recording the results
4	Preparation of mammalian expression DNA construct (2) Learn how to judge the result of cloning.	Practice	Takeuchi Ohsumi Higashi	Recording the results
5	Introducing genes into cultured cells and confirming the expression (1) Learn how to introduce the prepared expression constructs into cultured cells.	Practice	Takeuchi Ohsumi Higashi	Recording the results
6	Introducing genes into cultured cells and confirming the expression (2) Learn how to introduce the prepared expression constructs into cultured cells.	Practice	Takeuchi Ohsumi Higashi	Recording the results
7	Introducing genes into cultured cells and confirming the expression (3) Learn how to check expression of the introduced gene. (Microscopic examination and electrophoresis of the protein).	Practice	Takeuchi Ohsumi Higashi	Recording the results
8	Introducing genes into cultured cells and confirming the expression (4) Learn how to check expression of the gene (Western blotting).	Practice	Takeuchi Ohsumi Higashi	Recording the results
9	Examining the effect of drugs using the transfected cells (1) Learn how to observe translocation of the intracellular protein in response to drug treatment.	Practice	Takeuchi Ohsumi Higashi	Recording the results
10	Examining the effect of drugs using the transfected cells (2) Learn how to evaluate effect of the drug based on phosphorylation of the intracellular protein (Preparation of samples).	Practice	Takeuchi Ohsumi Higashi	Recording the results
11	Examining the effect of drugs using the transfected cells (3) Learn how to evaluate effect of the drug based on phosphorylation of the intracellular protein (Electrophoresis).	Practice	Takeuchi Ohsumi Higashi	Recording the results
12	Examining the effect of drugs using the transfected cells (4) Learn how to evaluate effect of the drug based on phosphorylation of the intracellular protein (Detection and judgment of the result).	Practice	Takeuchi Ohsumi Higashi	Recording the results
13	Examining the effect of drugs using the transfected cells (5) Learn how to evaluate effect of the drug based on intracellular calcium level (Preparation of cells).	Practice	Takeuchi Ohsumi Higashi	Recording the results
14	Examining the effect of drugs using the transfected cells (6) Learn how to evaluate effect of the drug based on intracellular calcium level (Calcium imaging).	Practice	Takeuchi Ohsumi Higashi	Recording the results
15	Summary of the data and discussion Summarize your data and present/discuss the result.	Practice	Takeuchi Ohsumi Higashi	Summarize your results and prepare for the presentation

2016年度

Seminar in Pharmacology (Seminar in Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業の概要

【Language】 Japanese

In this course, you will study the basic knowledge and experimental procedures for animal experiment. You will study the animal experiment protocol drafting.

学生の到達目標

1. You will explain the laboratory animals.
2. You will draft an animal experiment protocol.
3. You will administer drugs to animals.
4. You will explain and practice the basic pharmacological experiment.

テキスト

出) (著)

参考書

Guidelines for proper conduct of animal experiments
出) (著)

成績評価方法・基準

評価項目	割合
oral presentation	40%
discussions	10%
attendance	50%

その他

2016年度

Seminar in Pharmacology (Seminar in Pharmacology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Takeuchi H.						
担当教員	竹内 弘、大住 伴子、東 泉						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	You will discuss the lecture and practice in this course.	Lecture	Takeuchi Ohsumi Higashi	
2	Laboratory animal science 1 You will study the outline of laboratory animals.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
3	Laboratory animal science 2 You will obtain knowledge of laws and guidelines for laboratory animals.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
4	Laboratory animal science 3 You will obtain knowledge of animal welfare for laboratory animals.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
5	Laboratory animal science 4 You will obtain knowledge of the administration of drug, anesthetics management and euthanasia procedures.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
6	Laboratory animal science 5 You will obtain knowledge of the administration of drug, anesthetics management and euthanasia procedures.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
7	Laboratory animal science 6 You will obtain knowledge of the administration of drug, anesthetics management and euthanasia procedures.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
8	Pharmacological experiment 1 You will obtain knowledge of the acute toxicity test.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
9	Pharmacological experiment 2 You will obtain knowledge of the chronic toxicity test.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
10	Pharmacological experiment 3 You will obtain knowledge of the local irritation test.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
11	Pharmacological experiment 4 You will obtain knowledge of another toxicity tests.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
12	Drafting of animal experiment protocol 1 You will study the method of drafting the animal experiment protocol.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
13	Drafting of animal experiment protocol 2 You will study the method of drafting the animal experiment protocol.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
14	Drafting of animal experiment protocol 3 You will draft the animal experiment protocol.	Lecture and practice	Takeuchi Ohsumi Higashi	Careful reading of handout
15	Summary You will summarize pharmacological experiments.	Lecture	Takeuchi Ohsumi Higashi	

2016年度

Oral Heath Science (Oral Heath Science)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Akifusa S.						
担当教員	日高 勝美、引地 尚子、中道 敦子、秋房 住郎						

授業の概要

【Language】Japanese

To obtain the ability for research and instruction on oral health sciences, students learn the recent oral health-related evidences and the research skills/analytical methods with lectures in omnibus form

学生の到達目標

You should achieve the basic and applied knowledge indicated below.

You can

1. explain practical problems with healthcare team and role of dental personnel on an integrated community care-system, based on knowledge on recent trend of health, medical, and long-term care in Japan.
2. explain the logical perspective and the research methods to resolve the problems of oral health-related diseases /disorder.
3. explain the basic / clinical methods concerning evidence-based medicine (EBM) on oral surgery and oral medicine
4. imagine the oral health related-professional value and ability based on clients background.
5. explain the methodology to provide relationship between oral status/diseases and general status.
6. explain for higher-order brain, neurophysiological, and non-invasive research methods on feeding behavior.
7. explain the logical perspective and the research methods to resolve the problems of nutritional-related health or disease.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
evaluation of after-action report	100%

その他

2016年度

Oral Health Science (Oral Health Science)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Akifusa S.						
担当教員	日高 勝美、引地 尚子、中道 敦子、秋房 住郎						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Promotion and problems of integrated community care-system (1)	Lecture	Hidaka	after-action report
2	Promotion and problems of integrated community care-system (2)	Lecture	Hidaka	after-action report
3	Oral health related-perspective (1)	Lecture	Akifusa	after-action report
4	Oral health related-perspective (2)	Lecture	Akifusa	after-action report
5	EBM on oral science (1)	Lecture	Hikiji	after-action report
6	EBM on oral science (2)	Lecture	Hikiji	after-action report
7	Perspective on higher education for dental hygienist (1)	Lecture	Nakamichi	after-action report
8	Perspective on higher education for dental hygienist (2)	Lecture	Nakamichi	after-action report
9	Methodology on relation with oral and general status (1)	Lecture	Sonoki	after-action report
10	Methodology on relation with oral and general status (2)	Lecture	Sonoki	after-action report
11	Perspective on higher-order brain (1)	Lecture	Yoshino	after-action report
12	Perspective on higher-order brain (2)	Lecture	Yoshino	after-action report
13	Dietetic perspective on health (1)	Lecture	Tsujisawa	after-action report
14	Dietetic perspective on health (2)	Lecture	Tsujisawa	after-action report
15	Summary	Lecture	Akifusa	after-action report

2016年度

Oral Health Science (Oral Health Science)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Akifusa S.						
担当教員	日高 勝美、引地 尚子、中道 敦子、秋房 住郎、園木 一男、吉野 賢一、辻澤 利行						

授業の概要

【Language】Japanese

To understand most recent trend of discipline on oral health sciences, discuss the related papers of international journal

学生の到達目標

You should achieve the basic and applied knowledge indicated below.

You can

1. explain the contents of papers in English.
2. explain the background of papers.
3. explain the methods described in papers in detail.
4. explain the results described in papers in detail.
5. explain critically the discussion described in papers.
6. perform presentation for the contents of the read papers.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
evaluation of after-action report	100%

その他

2016年度

Oral Heath Science (Oral Heath Science)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Akifusa S.						
担当教員	日高 勝美、引地 尚子、中道 敦子、秋房 住郎、園木 一男、吉野 賢一、辻澤 利行						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	understand and explain the contents of most recent trend of discipline on oral health sciences	Practice	All	paper search, after-action report

2016年度

Oral Heath Science (Oral Heath Science)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Akifusa S.						
担当教員	日高 勝美、引地 尚子、中道 敦子、秋房 住郎、園木 一男、吉野 賢一、辻澤 利行						

授業の概要

【Language】Japanese

All teacher and students discuss on the outcome of study, to improve the quality of study, and to develop ability of presentation

学生の到達目標

You should achieve the basic and applied knowledge indicated below.

You can

1. explain logically the contents of your study.
2. explain the background of your study in detail.
3. answer questions on your study.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
evaluation of after-action report	100%

その他

2016年度

Oral Heath Science (Oral Heath Science)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Akifusa S.						
担当教員	日高 勝美、引地 尚子、中道 敦子、秋房 住郎、園木 一男、吉野 賢一、辻澤 利行						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Presentation of your study followed with question and answer	Practice	All	paper search, after-action report

2016年度

Comprehensive dentistry (Basic course) (Comprehensive dentistry (Basic course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵 Clinical training instructor : Konoo,Ngamatsu,Onizuka Certified dentist of the Japanese Society of Dental Practice Administration : Konoo,Onizuka Certified dentist and instructor of Japanese Orthodontic Society : Konoo						

授業の概要

You can practice the comprehensive dental treatment with the cognitive, affective and psychomotor domain.

学生の到達目標

- 1 . Knowledge and competence for the comprehensive dentistry
- 2 . Knowledge and competence for the primary care and treatment
- 3 . Making the general comprehensive treatment plan
- 4 . Practice of the team treatment

テキスト

Essential handbook for dental resident, Real medical interview matched with the patients ' needs

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
The minimum requirements	100%

The minimum requirements are the reports (5 cases), case presentation (2 cases), initial treatment (5 cases) and conservative treatment (5 cases).

その他

2016年度

Comprehensive dentistry (Basic course) (Comprehensive dentistry (Basic course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵 Clinical training instructor : Konoo,Ngamatsu,Onizuka Certified dentist of the Japanese Society of Dental Practice Administration : Konoo,Onizuka Certified dentist and instructor of Japanese Orthodontic Society : Konoo						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Guidance	Lecture	Konoo	-
2-3	Impression taking	Lecture, Practice	Konoo Nagamatsu u Onizuka	-
4-8	Impression taking	Practice	Konoo Nagamatsu u Onizuka	-
9-14	Study model making	Practice	Konoo Nagamatsu u Onizuka	-
15-22	Information gathering (pictures etc.)	Practice	Konoo Nagamatsu u Onizuka	-
23-24	Referral patient from other clinical office	Lecture, Practice	Konoo Nagamatsu u Onizuka	-
25-29	Medical interview 1	Practice	Konoo Nagamatsu u Onizuka	-
30-34	Medical interview 2	Practice	Konoo Nagamatsu u Onizuka	-
35-37	Clinical system and treatment posture	Practice	Konoo Nagamatsu u Onizuka	-
38-41	Endodontic treatment	Practice	Konoo Nagamatsu u Onizuka	-
42-45	Periodontal initial treatment	Practice	Konoo Nagamatsu u Onizuka	-
46-49	Treatment of the teeth disease	Practice	Konoo Nagamatsu u Onizuka	-
50-54	Limited orthodontic treatment	Practice	Konoo Nagamatsu u Onizuka	-

2016年度

Comprehensive dentistry (Basic course)

(Comprehensive dentistry (Basic course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵 Clinical training instructor : Konoo,Ngamatsu,Onizuka Certified dentist of the Japanese Society of Dental Practice Administration : Konoo,Onizuka Certified dentist and instructor of Japanese Orthodontic Society : Konoo						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
55-57	Presentation resume making	Practice	Konoo Nagamatsu u Onizuka	-
58-60	Oral Presentation	Practice	Konoo Nagamatsu u Onizuka	-

2016年度

Comprehensive dentistry (advanced course) (Comprehensive dentistry (advanced course))

開講年次	2 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵 Clinical training instructor : Konoo,Nagamatsu,Onizuka Certified dentist of the Japanese Society of Dental Practice Administration : Konoo,Onizuka Certified dentist and instructor of Japanese Orthodontic Society : Konoo						

授業の概要

You can practice the comprehensive dental treatment with the competences of the cognitive, affective and Psychomotor domain.

学生の到達目標

- 1 . Knowledge and competence for the comprehensive dentistry
- 2 . Practice and competence for the primary care and treatment
- 3 . Practice the general comprehensive treatment plan

テキスト

出) 著)

参考書

Essential handbook for dental resident, Real medical interview matched with the patients ' needs
出) 著)

成績評価方法・基準

評価項目	割合
The minimum requirements	100%

The minimum requirements are the reports (5 cases), case presentation (2 cases), initial treatment (5 cases) and conservative treatment (5 cases).

その他

2016年度

Comprehensive dentistry (advanced course)

(Comprehensive dentistry (advanced course))

開講年次	2 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵 Clinical training instructor : Konoo,Nagamatsu,Onizuka Certified dentist of the Japanese Society of Dental Practice Administration : Konoo,Onizuka Certified dentist and instructor of Japanese Orthodontic Society : Konoo						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-4	Guidance, Medical interview	Practice	Konoo Nagamatsu u Onizuka	-
5-8	Medical interview	Practice	Konoo Nagamatsu u Onizuka	-
9-12	Periodontal treatment	Practice	Konoo Nagamatsu u Onizuka	-
13-17	Endodontic treatment	Practice	Konoo Nagamatsu u Onizuka	-
18-21	Dental caries treatment	Practice	Konoo Nagamatsu u Onizuka	-
22-26	Dental crown treatment	Practice	Konoo Nagamatsu u Onizuka	-
27-31	Rigid prosthetic treatment for the missing teeth	Practice	Konoo Nagamatsu u Onizuka	-
32 ~ 36	Removable prosthetic treatment for the missing teeth	Practice	Konoo Nagamatsu u Onizuka	-
37 ~ 40	Orthodontic treatment	Practice	Konoo Nagamatsu u Onizuka	-
41 ~ 44	Team dental treatment	Practice	Konoo Nagamatsu u Onizuka	-
45 ~ 46	Application of the explanatory model	Practice	Konoo Nagamatsu u Onizuka	-
47 ~ 48	Denture Guidance	Practice	Konoo Nagamatsu u Onizuka	-

2016年度

Comprehensive dentistry (advanced course)

(Comprehensive dentistry (advanced course))

開講年次	2 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵 Clinical training instructor : Konoo,Nagamatsu,Onizuka Certified dentist of the Japanese Society of Dental Practice Administration : Konoo,Onizuka Certified dentist and instructor of Japanese Orthodontic Society : Konoo						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
49 ~ 50	Infection control	Practice	Konoo Nagamatsu u Onizuka	-
51 ~ 52	Medical safety management	Practice	Konoo Nagamatsu u Onizuka	-
53 ~ 57	Comprehensive dentistry	Practice	Konoo Nagamatsu u Onizuka	-
58 ~ 60	Oral presentation	Practice	Konoo Nagamatsu u Onizuka	-

2016年度

Research of the dental education (Research of the dental education)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業の概要

For the practice of the holistic treatment, you can understand and practice the communication skills and dental education methods based on the cognitive, affective and psychomotor domains.

学生の到達目標

1. Understanding the communication methodology
2. Understanding the dental educational methodology
3. To be competent in communication
4. To be competent in dental educational methodology
5. Application of educational methodology
6. Professionalism

テキスト

The medical communication Research, The questionnaire methods The related articles.
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
portfolios	30%
oral examinations	50%
paper examination	20%

その他

2016年度

Research of the dental education (Research of the dental education)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	orientation	Lecture	Konoo	Communication skills, Educational technique
2	Communication skills 1 (Active listening, empathy and Cross-cultural communication)	Lecture	Konoo, Nagamatsu,	Communication skills, Cross-cultural communication
3	Communication research methods	Lecture	Konoo, Onizuka	Ethnomethodology, Taxonomy
4	Communication skills 2	Practice	Konoo, Nagamatsu, Onizuka,	Communication skills, Competences, Dialect
5-7	Interaction analysis (quantitative)	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	Scripts, RIAS
8-9	Interaction analysis (qualitative)	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	Textmining Competences
10	Global standard of the dental education	Lecture	Konoo	Outcomes
11	Problem Based Learning	Lecture	Konoo	Outcomes PBL
12-13	Medical Interview	Lecture	Konoo, Nagamatsu, Onizuka,	Psychosocial factors
14-15	Model simulation 1 (guidance, automatic trace pursuit and preparation pressure)	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	simulation

2016年度

Research of the dental education (Research of the dental education)

開講年次	2 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業の概要

For the practice of the holistic treatment, you can understand and practice the communication skills and dental education methods based on the cognitive, affective and psychomotor domains.

学生の到達目標

1. Understanding the communication methodology
2. Understanding the dental educational methodology
3. To be competent in communication
4. Application of educational methodology
5. Professionalism

テキスト

The medical communication Research, The questionnaire methods, The related articles.

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
portfolios	30%
oral examinations	50%
paper examination	20%

その他

2016年度

Research of the dental education (Research of the dental education)

開講年次	2 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-5	Model simulation 2 (Cavity, preparation and root canal measuring)	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	simulator
6-7	Microteaching	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	Characteristic
8-9	Medical Behavior	Lecture	Konoo, Onizuka	Behavior education
10-11	Medical Ethics	Lecture	Konoo, Nagamatsu	Professionalis m
12-13	KJ method	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	Characteristic
14-15	Facilitation skills	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	Behavior changes Facilitation

2016年度

Research of the dental education (Research of the dental education)

開講年次	3 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業の概要

For the practice of the holistic treatment, you can understand and practice the communication skills and dental education methods based on the cognitive, affective and psychomotor domains.

学生の到達目標

1. Understanding the communication methodology
2. Understanding the dental educational methodology
3. To be competent in communication
4. Application of educational methodology
5. Professionalism

テキスト

The medical communication Research, The questionnaire methods The related articles.
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
portfolios	30%
oral examinations	50%
paper examination	20%

その他

2016年度

Research of the dental education (Research of the dental education)

開講年次	3 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-2	Coaching	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	Assertion
3-4	Paper questionnaire	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	Characteristic of Questionnaire method
5-7	dental psychosomatic disease	Lecture	Konoo	dental psychosomatic disease Behavior
8	patient psychology	Lecture	Konoo	Cognitive psychology
9	correspondence to a complainer	Lecture, Practice	Konoo, Nagamatsu, Onizuka,	Complainer, Cognitive psychology
10-11	Simulated (Standardized)patient	Lecture	Konoo	SP Facilitation
12-14	Safety medical environment design	Lecture	Onizuka	Risk management, Incident
15	Professionalism	Lecture	Konoo	competence

2016年度

Education and research of the general dentistry (Education and research of the general dentistry)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業の概要

Abstract the research paper to understand the worldwide research trend of the general dentistry.
Report, discuss and present the own research.

学生の到達目標

1. Explanation the article of the specialty domain. (cognitive domain)
2. Understanding, evaluation and discussion about the study of other fields. (cognitive and affective domain)
3. Competence to understand research paper written in English mainly. (psychomotor domain)
4. Competence for the research discussion. (psychomotor domain)
5. Presentation the own research. (psychomotor domain)

テキスト

An important related research article and appropriate reference book
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
portfolios, oral and paper examination.	100%

その他

2016年度

Education and research of the general dentistry (Education and research of the general dentistry)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Understanding the educational research paper	Abstract , report and discussion	Konoo, Nagamatsu, Onizuka,	Investigation the associated research paper

2016年度

Education and research of the general dentistry (Education and research of the general dentistry)

開講年次	2 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業の概要

Abstract the research paper to understand the worldwide research trend of the general dentistry.
Report, discuss and present the own research.

学生の到達目標

1. Explanation the article of the specialty domain. (cognitive domain)
2. Understanding, evaluation and discussion about the study of other fields. (cognitive and affective domain)
3. Competence to understand research paper written in English mainly. (psychomotor domain)
4. Competence for the research discussion. (psychomotor domain)
5. Presentation the own research. (psychomotor domain)
6. Write the research report and abstract. (psychomotor domain)
7. Planning and conducting the seminar. (psychomotor domain)

テキスト

An important related research article and appropriate reference book
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
portfolios, oral and paper examination	100%

その他

2016年度

Education and research of the general dentistry (Education and research of the general dentistry)

開講年次	2 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Understanding the educational research paper	Abstract , report and discussion	Konoo, Nagamatsu, Onizuka,	Investigation the associated research paper

2016年度

Education and research of the general dentistry (Education and research of the general dentistry)

開講年次	3 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業の概要

Abstract the research paper to understand the worldwide research trend of the general dentistry.
Report, discuss and present the own research.

学生の到達目標

1. Explanation the article of the specialty domain. (cognitive domain)
2. Understanding, evaluation and discussion about the study of other fields. (cognitive and affective domain)
3. Competence to understand research paper written in English mainly. (psychomotor domain)
4. Competence for the research discussion. (psychomotor domain)
5. Presentation the own research. (psychomotor domain)
6. Write the research report and abstract. (psychomotor domain)
7. Planning and conducting the seminar. (psychomotor domain)
8. Competence to make the research paper. (psychomotor domain)
9. Instruction the seminar contents. (affective and psychomotor domain)

テキスト

An important related research article and appropriate reference book
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
portfolios, oral and paper examination	100%

その他

2016年度

Education and research of the general dentistry (Education and research of the general dentistry)

開講年次	3 ~ 4 grades	期区分	通年	科目	Compulsory subject	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	T.Konoo						
担当教員	木尾 哲朗、永松 浩、鬼塚 千絵						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Understanding the educational research paper	Abstract , report and discussion	Konoo, Nagamatsu, Onizuka,	Investigation the associated research paper

2016年度

Endodontics and Restorative Dentistry (Clinical Basic Course) (Endodontics and Restorative Dentistry (Clinical Basic Course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	実習	時間数	60hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kitamura C						
担当教員	北村 知昭、諸富 孝彦、鷲尾 絢子、吉居 慎二、西藤 法子 Accredited Specialist : Kitamura,Morotomi,Washio,Yoshii,Saito upervisor of Conservative Dentistry : Kitamura,Morotomi Accredited Supervisor of Endodontics : Kitamura Accredited Supervisor of Orofacial Pain : Kitamura						

授業の概要

In the present, the elderly person has many teeth, and the importance of the tooth is recognized. High-precision skills to carry out dental treatment of a tooth is demanded. In this course, you will practice basic skills about Restorative Dentistry, Endodontics, Aesthetic Dentistry and Prosthodontics. Under the management by Supervisors, you will carry out simulation training and clinical practice, and acquire fundamental knowledge as well as skills for a specialist in the area of Conservative Dentistry.

学生の到達目標

To acquire fundamental knowledge and skills for tooth therapeutics, you will practice basic skills about Restorative Dentistry, Endodontics, Aesthetic Dentistry and Prosthodontics.

You should achieve following assignments;

- Construction of good relationship with patients and stuffs
- Pass to grade tests (1) and (2)
- Collection of clinical cases
- Acquisition of skills for Endodontics, Pulp Preservation, Pre-treatment before Endodontics
- Acquisition of skills for tooth preparation
- Acquisition of basic skills for dissection and suturing of gingiva

テキスト

Related textbooks

出) 著)

Training textbook made by the division

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
the average of Tests (1) and (2)	100%

その他

2016年度

Endodontics and Restorative Dentistry (Clinical Basic Course) (Endodontics and Restorative Dentistry (Clinical Basic Course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	実習	時間数	60hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kitamura C						
担当教員	北村 知昭、諸富 孝彦、鷺尾 絢子、吉居 慎二、西藤 法子 Accredited Specialist : Kitamura,Morotomi,Washio,Yoshii,Saito upervisor of Conservative Dentistry : Kitamura,Morotomi Accredited Supervisor of Endodontics : Kitamura Accredited Supervisor of Orofacial Pain : Kitamura						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-3	Basic of Endodontics I You will master basic endodontics skills in simulator to clear Test (1).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
4-6	Basic of Restorative Dentistry I You will master basic restorative dentistry skills in simulator to clear Test (1).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
7-9	Basic of Tooth Preparation I You will master basic prosthodontics skills in simulator to clear Test (1).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
10-12	Test (1) You will take exams of basic skills in simulator.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices
13-15	Basic of Endodontics II You will master basic endodontics skills in clinic to clear Test (2).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices
16-18	Basic of Restorative Dentistry II You will master basic restorative dentistry skills in clinic to clear Test (2).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices
19-21	Basic of Tooth Preparation II You will master basic prosthodontic skills in clinic to clear Test (2).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices
22-24	Basic of Periodontal treatment You will master basic prosthodontics skills in clinic to clear Test (2).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices
25-27	Test (2) You will take exams of basic skills in clinical cases.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices

2016年度

Endodontics and Restorative Dentistry (Clinical Basic Course) (Endodontics and Restorative Dentistry (Clinical Basic Course))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	実習	時間数	60hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kitamura C						
担当教員	北村 知昭、諸富 孝彦、鷲尾 絢子、吉居 慎二、西藤 法子 Accredited Specialist : Kitamura,Morotomi,Washio,Yoshii,Saito upervisor of Conservative Dentistry : Kitamura,Morotomi Accredited Supervisor of Endodontics : Kitamura Accredited Supervisor of Orofacial Pain : Kitamura						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
28-30	Basic of Dissection and Suturing You will master basic dissection and suturing skills in simulator.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices

2016年度

Endodontics and Restorative Dentistry (Clinical Advance Course S) (Endodontics and Restorative Dentistry (Clinical Advance Course S))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	実習	時間数	60hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kitamura C						
担当教員	北村 知昭、諸富 孝彦、鷲尾 絢子、吉居 慎二、西藤 法子 Accredited Specialist : Kitamura,Morotomi,Yoshii,Saito Supervisor of Conservative Dentistry : Kitamura,Morotomi Accredited Supervisor of Endodontics : Kitamura Accredited Supervisor of Orofacial Pain : Kitamura						

授業の概要

In this course, you will collect cases to be a specialist in the area of Conservative Dentistry, and practice basic skills about Restorative Dentistry, Endodontics, Aesthetic Dentistry and Prosthodontics. Also, you will carry out training of microscope-enhanced dentistry to pass to grade test (3).

学生の到達目標

To acquire full knowledge and high-precision skills for tooth therapeutics and be a specialist in the area of Conservative Dentistry, you will practice special skills about Restorative Dentistry, Endodontics, Aesthetic Dentistry and Prosthodontics.

You should achieve following assignments;

- Pass to grade test (3)
- Acquisition of special skills for Microscope-Enhanced Dentistry
- Full planning of dental treatment

テキスト

Related textbooks

出) 著)

Training textbook made by the division

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Test (3)	100%

その他

2016年度

Endodontics and Restorative Dentistry (Clinical Advance Course S) (Endodontics and Restorative Dentistry (Clinical Advance Course S))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	実習	時間数	60hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kitamura C						
担当教員	北村 知昭、諸富 孝彦、鷲尾 絢子、吉居 慎二、西藤 法子 Accredited Specialist : Kitamura,Morotomi,Yoshii,Saito Supervisor of Conservative Dentistry : Kitamura,Morotomi Accredited Supervisor of Endodontics : Kitamura Accredited Supervisor of Orofacial Pain : Kitamura						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1 ~ 5	Micro-Endodontics You will master micro-endodontics skills in simulator to clear Test (3).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
6 ~ 10	Aesthetic Dentistry under Microscope You will master aesthetic dentistry skills under microscope in simulator to clear Test (3).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
11 ~ 15	Tooth Preparation under Microscope You will master prosthodontics skills in simulator to clear Test (3).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
16 ~ 20	Removal of Post under Microscope You will master removal of post under microscope in simulator to clear Test (3).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
21 ~ 25	Dissection and Suturing under Microscope You will master dissection and suturing under microscope in simulator to clear Test (3).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
26 ~ 30	Test (3) You will take exams of basic microscope skills in simulator.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices

2016年度

Endodontics and Restorative Dentistry (Clinical Advance Course H) (Endodontics and Restorative Dentistry (Clinical Advance Course H))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kitamura C						
担当教員	北村 知昭、諸富 孝彦、鷺尾 絢子、吉居 慎二、西藤 法子 Accredited Specialist : Kitamura,Morotomi,Washio,Yoshii,Saito Supervisor of Conservative Dentistry : Kitamura,Morotomi Accredited Supervisor of Endodontics : Kitamura Accredited Supervisor of Orofacial Pain : Kitamura						

授業の概要

In this course, you will collect cases to be a specialist in the area of Conservative Dentistry, and acquire special skills of microscope-enhanced dentistry to pass to grade test (4). Also, you will acquire skills for presentation and clinical reasoning through clinical seminar.

学生の到達目標

To acquire full knowledge and high-precision skills for tooth therapeutics and be a specialist of Conservative Dentistry, you will practice special skills about Microscope Enhanced Dentistry. Also, you will acquire skills for presentation and clinical reasoning.

You should achieve following assignments;

- Pass to grade test (4)
- Acquisition of special skills for Microscope-Enhanced Dentistry
- Full planning of dental treatment
- Case Presentation

テキスト

Related textbooks

出) 著)

Training textbook made by the division

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Test (4)	100%

その他

2016年度

Endodontics and Restorative Dentistry (Clinical Advance Course H) (Endodontics and Restorative Dentistry (Clinical Advance Course H))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kitamura C						
担当教員	北村 知昭、諸富 孝彦、鷺尾 絢子、吉居 慎二、西藤 法子 Accredited Specialist : Kitamura,Morotomi,Washio,Yoshii,Saito Supervisor of Conservative Dentistry : Kitamura,Morotomi Accredited Supervisor of Endodontics : Kitamura Accredited Supervisor of Orofacial Pain : Kitamura						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1 ~ 8	Micro-Endodontics You will master micro-endodontics skills in clinic to clear Test (4).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
9 ~ 16	Aesthetic Dentistry under Microscope You will master aesthetic dentistry skills under microscope in clinic to clear Test (4).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
17 ~ 24	Micro-Endodontic Surgery You will master micro-endodontic surgery skills in clinic to clear Test (4).	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
25 ~ 32	Test (4) You will take exams of microscope skills in clinical cases.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices
33 ~ 40	Planning in clinics You will plan to treat in clinic to obtain accredited specialist.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Teeth character Positioning
41 ~ 48	Clinics You will carry out clinical cases to obtain accredited specialist.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices
49 ~ 56	Case Presentation and Lectures You will carry out clinical case presentations, and attend lectures to obtain accredited specialist.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices
57 ~ 60	Preparation of Cases for Accredited Specialists You will prepare clinical case presentations to obtain accredited specialist.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Review above Practices

2016年度

Endodontics and Restorative Dentistry (Research Seminar) (Endodontics and Restorative Dentistry (Research Seminar))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kitamura C						
担当教員	北村 知昭、諸富 孝彦、鷲尾 絢子、吉居 慎二、西藤 法子						

授業の概要

In this course, you will read and present papers related your research to acquire logical thinking as well as international point of view. Also, you will present results of your research to discuss.

学生の到達目標

To acquire full knowledge and skills for research and presentation, you will read and present international papers related your research to acquire logical thinking as well as international point of view.

You should achieve following assignments;

- Collect international papers related to your research
- Read and present papers
- Acquire presentation skills
- Case Presentation

テキスト

Related textbooks

出) 著)

Training textbook made by the division

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Presentation	100%

その他

2016年度

Endodontics and Restorative Dentistry (Research Seminar) (Endodontics and Restorative Dentistry (Research Seminar))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kitamura C						
担当教員	北村 知昭、諸富 孝彦、鷺尾 絢子、吉居 慎二、西藤 法子						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-5	Reading and presentation of research paper You will master reading and presentation of related international research paper.	Introduction and Discussion of Papers	Kitamura, Morotomi, Washio, Yoshii, Saito	Reading papers
6-10	Presentation of research You will show and explain your research.	Discussion of Research	Kitamura, Morotomi, Washio, Yoshii, Saito	Preparation of research results
11-15	Introduction of international papers by supervisors You will learn and attend lectures by specialists.	Introduction and Discussion of Papers	Kitamura, Morotomi, Washio, Yoshii, Saito	Reading papers

2016年度

Endodontics and Restorative Dentistry (Research Practice) (Endodontics and Restorative Dentistry (Research Practice))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	北村 知昭						
担当教員	北村 知昭、諸富 孝彦、鷲尾 絢子、吉居 慎二、西藤 法子						

授業の概要

In this course, you will acquire skills related to research for PhD.

学生の到達目標

To be a international researcher, dentist, and educator, you will acquire abilities to carry out experiments and prepare papers for PhD.

You should achieve following assignments;

- Acquisition of knowledge and skills to carry out research
- Preparation of results from experiments
- Presentation in scientific meeting
- Prepare scientific papers

テキスト

Related textbooks

出)

著)

参考書

出)

著)

成績評価方法・基準

評価項目	割合
Practices	100%

その他

2016年度

Endodontics and Restorative Dentistry (Research Practice) (Endodontics and Restorative Dentistry (Research Practice))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	北村 知昭						
担当教員	北村 知昭、諸富 孝彦、鷲尾 絢子、吉居 慎二、西藤 法子						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation You will discuss and decide your research theme with supervisors.	Lecture	Kitamura, Morotomi, Washio, Yoshii, Saito	Reading papers
2,3	Research with Cells You will master research skills with cells.	Discussion of Research	Kitamura, Morotomi, Washio, Yoshii, Saito	Reading papers
4,5	Research with animals You will master research skills with animals.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Reading papers
6,7	Research of Materials You will master research skills about dental materials.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Reading papers
8,9	Research of Devises You will master research skills about medical and dental devices.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Reading papers
10,11	Clinical Research You will master clinical research skills.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Reading papers
12 ~ 15	Preparation of Presentation and Papers You will master preparation of presentation and paper to obtain PhD.	Practice	Kitamura, Morotomi, Washio, Yoshii, Saito	Reading papers

2016年度

Periodontology (Clinical Basic Course)

(Periodontology (Clinical Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima K.						
担当教員	中島 啓介、臼井 通彦、村岡 宏祐、中村 太志、守下 昌輝、花谷 智哉 JSP Instructor : Nakashima K. JSCD Supervisor : Nakashima K. JSP Board Certified Periodontist : Usui M. , Muraoka K. JSCD Accredited Specialists : Usui M. , Muraoka K. JSP Periodontist : Nakamura T. , Morishita M. , Hanatani T.						

授業の概要

【Language】 English and Japanese

Periodontitis have received a lot of attention as an oral disease associated with systemic disease in recent years. This course deals with effective diagnosis and treatment procedure of periodontitis based on EBM. You will be able to read a number of published articles related to periodontitis all over the world and acquire diagnostic ability and clinical problem resolution skill as a periodontist.

学生の到達目標

By the end of the course, students should be able to do the following;

1. Practice a medical interview to patients of periodontitis (1),
2. Describe and explain periodontal tissue examination (2 ~ 7, 20),
3. Design a treatment plan based on periodontal tissue examination (8),
4. Practice an effective patient education (9 ~ 14),
5. Practice ultrasonic scaling and scaling and root planing (15 ~ 19),
6. Recognize basic techniques of periodontal surgery and explain wound healing after surgery (21 ~ 23),
7. Recognize periodontal regenerative therapy and explain prognosis after regenerative surgery (24, 25),
8. Describe and explain prosthetics, orthodontics and implant in periodontal therapy (26 ~ 28),
9. Explain significance and procedure of SPT (29),
10. Report a case of periodontitis and explain treatment plan and outcome of periodontal therapy (30),

テキスト

Journal of Periodontology

出) 著)

Journal of Clinical Periodontology

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
oral examination in clinical conference	100%

その他

Texts will be delivered in every class.

2016年度

Periodontology (Clinical Basic Course)

(Periodontology (Clinical Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima K.						
担当教員	中島 啓介、臼井 通彦、村岡 宏祐、中村 太志、守下 昌輝、花谷 智哉 JSP Instructor : Nakashima K. JSCD Supervisor : Nakashima K. JSP Board Certified Periodontist : Usui M. , Muraoka K. JSCD Accredited Specialists : Usui M. , Muraoka K. JSP Periodontist : Nakamura T. , Morishita M. , Hanatani T.						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Medical interview to patient of periodontitis	Practice	Nakashima	Review
2	Periodontal Tissue Examination (Intraoral photograph 1)	Practice	Nakashima	Review
3	Periodontal Tissue Examination (Intraoral photograph 2)	Practice	Nakashima	Review
4	Periodontal Tissue Examination (Probing)	Practice	Morishita	Review
5	Periodontal Tissue Examination (Radiologic image reading)	Practice	Morishita	Review
6	Periodontal Tissue Examination (Measurement and analysis of occlusal force)	Practice	Muraoka	Review
7	Periodontal Tissue Examination (Tooth mobility measurement)	Practice	Hanatani	Review
8	Design of treatment plan	Practice	Hanatani	Review
9	Effective Patient Education 1	Practice	Hanatani	Review
10	Effective Patient Education 2	Practice	Nakamura	Review
11	Effective Patient Education 3	Practice	Nakamura	Review
12	Effective Patient Education 4	Practice	Nakamura	Review
13	Effective Patient Education 5	Practice	Nakamura	Review
14	Effective Patient Education 6	Practice	Nakamura	Review
15	Ultrasonic Scaling (supragingiva)	Practice	Nakashima	Review
16	Ultrasonic Scaling (subgingiva and furcation)	Practice	Nakashima	Review
17	Scaling and Root Planing 1 (operator position)	Practice	Muraoka	Review
18	Scaling and Root Planing 2 (sharpening scaler)	Practice	Muraoka	Review
19	Scaling and Root Planing 3 (nonsurgical periodontal therapy)	Practice	Hanatani	Review
20	Design of treatment plan based on reevaluation and response to periodontal therapy	Practice	Hanatani	Review
21	Periodontal Surgery 1 (basic techniques in periodontal surgery; periodontal flap (full and partial thickness) and method for suturing)	Practice	Morishita	Review
22	Periodontal Surgery 2 (Flap operation)	Practice	Morishita	Review
23	Periodontal Surgery 3 (connective tissue graft)	Practice	Morishita	Review
24	Periodontal Regenerative Therapy 1 (GTR method)	Practice	Muraoka	Review
25	Periodontal Regenerative Therapy 2 (Emdogain)	Practice	Muraoka	Review
26	Periodontal Prosthetics	Practice	Usui	Review
27	Implants in Periodontal Therapy	Practice	Usui	Review

2016年度

Periodontology (Clinical Basic Course)

(Periodontology (Clinical Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima K.						
担当教員	中島 啓介、臼井 通彦、村岡 宏祐、中村 太志、守下 昌輝、花谷 智哉 JSP Instructor : Nakashima K. JSCD Supervisor : Nakashima K. JSP Board Certified Periodontist : Usui M. , Muraoka K. JSCD Accredited Specialists : Usui M. , Muraoka K. JSP Periodontist : Nakamura T. , Morishita M. , Hanatani T.						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
28	Orthodontics in Periodontal Therapy	Practice	Usui	Review
29	Practical Significance of Supportive Periodontal Theray (SPT)	Practice	Usui	Review
30	Clinical Conference	Practice	Usui	Review

2016年度

Periodontology (Periodontology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima K.						
担当教員	中島 啓介、臼井 通彦、村岡 宏祐、中村 太志、守下 昌輝、花谷 智哉 JSP Instructor : Nakashima K. JSCD Supervisor : Nakashima K. JSP Board Certified Periodontist : Usui M. , Muraoka K. JSCD Accredited Specialists : Usui M. , Muraoka K. JSP Periodontist : Nakamura T. , Morishita M. , Hanatani T.						

授業の概要

【Language】 English and Japanese

Research of periodontology is constantly advancing field in dentistry. It is important to recognize the latest data of the field before you start research. This course introduces a variety of tools to understand paper in English and also deals with clinical statistics, meta-analysis and sentence writing for scientific paper and presentation.

学生の到達目標

By the end of the course, students should be able to do the following;

1. Understand content of paper in English using online dictionary
2. Create database searching references by PubMed
3. Perform basic analysis of clinical data by statistical procedure
4. Understand procedure of meta-analysis
5. Make simple and logical sentences for scientific papers

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
attendance	60%
oral examination	40%

その他

Text;
Life science dictionary project (<http://lsd.pharm.kyoto-u.ac.jp/ja/index.html>)
JMP (statistical software)、EndNote (literature retrieval software)
Cochrane Reviews、Journal of Periodontology、Journal of Clinical Periodontology

2016年度

Periodontology (Periodontology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima K.						
	中島 啓介、臼井 通彦、村岡 宏祐、中村 太志、守下 昌輝、花谷 智哉						
担当教員	JSP Instructor : Nakashima K. JSCD Supervisor : Nakashima K. JSP Board Certified Periodontist : Usui M. , Muraoka K. JSCD Accredited Specialists : Usui M. , Muraoka K. JSP Periodontist : Nakamura T. , Morishita M. , Hanatani T.						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Search on Online Dictionary	practice	Nakamura	review
2	Search on PubMed	practice	Hanatani	review
3	Preparation of Literature Database	practice	Morishita	review
4	Clinical Statistics (Control of data)	practice	Muraoka	review
5	Clinical Statistics (normal distribution of data)	practice	Nakashima	review
6	Clinical Statistics (mean and comparison between groups)	practice	Nakashima	review
7	Clinical Statistics (analysis of variance)	practice	Hanatani	review
8	Clinical Statistics (simple linear regression analysis)	practice	Muraoka	review
9	Clinical Statistics (multiple linear regression analysis)	practice	Muraoka	review
10	Analysis of Clinical Data 1	practice	Nakamura	review
11	Analysis of Clinical Data 2	practice	Nakamura	review
12	Basis of meta-analysis	practice	Morishita	review
13	Application of meta-analysis	practice	Morishita	review
14	Preparation of a paper in Japanese	practice	Usui	review
15	Preparation of a paper in English	practice	Usui	review

2016年度

Periodontology (Clinical Conference)

(Periodontology (Clinical Conference))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory / optional subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima K.						
担当教員	中島 啓介、臼井 通彦、村岡 宏祐、中村 太志、守下 昌輝、花谷 智哉 JSP Instructor : Nakashima K. JSCD Supervisor : Nakashima K. JSP Board Certified Periodontist : Usui M. , Muraoka K. JSCD Accredited Specialists : Usui M. , Muraoka K. JSP Periodontist : Nakamura T. , Morishita M. , Hanatani T.						

授業の概要

【Language】 English and Japanese

You will read a number of the latest articles associated with periodontitis and learn methods for solving problems based on clinical cases.

学生の到達目標

By the end of the course, students should be able to do the following;

1. Respond to acute and chronic periodontitis
2. Develop the knowledge of surgical and nonsurgical periodontal therapy
3. Recognize the concept of refractory chronic periodontitis
4. Learn dental treatment based on psychosomatic dentistry and respond to the patients
5. Develop the knowledge of periodontal regenerative therapy

テキスト

Journal of Periodontology

出) 著)

Journal of Clinical Periodontology

出) 著)

Journal of Periodontal Research

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
oral examination in seminar, clinical conference	100%

その他

2016年度

Periodontology (Clinical Conference)

(Periodontology (Clinical Conference))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory / optional subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima K.						
担当教員	中島 啓介、臼井 通彦、村岡 宏祐、中村 太志、守下 昌輝、花谷 智哉 JSP Instructor : Nakashima K. JSCD Supervisor : Nakashima K. JSP Board Certified Periodontist : Usui M. , Muraoka K. JSCD Accredited Specialists : Usui M. , Muraoka K. JSP Periodontist : Nakamura T. , Morishita M. , Hanatani T.						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1 ~ 15	Seminar・Clinical conferences You will consider future development of periodontal research and treatment from the latest articles and examine application of them to clinical case.	Seminar and clinical conference	Nakashima a Usui Nakamura Morishita Hanatani	Review

2016年度

Periodontology (Advanced Periodontal Surgery)

(Periodontology (Advanced Periodontal Surgery))

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Clinical)	単位数	2
授業方法	講義・実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima K.						
	中島 啓介、臼井 通彦、村岡 宏祐、中村 太志、守下 昌輝、花谷 智哉						
担当教員	JSP Instructor : Nakashima K. JSCD Supervisor : Nakashima K. JSP Board Certified Periodontist : Usui M. , Muraoka K. JSCD Accredited Specialists : Usui M. , Muraoka K. JSP Periodontist : Nakamura T. , Morishita M. , Hanatani T.						

授業の概要

【Language】 English and Japanese

Periodontists need technological capacity and knowledge of periodontal surgery. This course deal with the basic concept and knowledge of periodontal surgery. It also enhances the development of student ' s skill of periodontal surgery on practicing phantom and porcine jawbone and assistance of supervisory doctor.

学生の到達目標

By the end of the course, students should be able to do the following;

1. Describe and explain a basic concept of periodontal surgery
2. Select appropriate operative procedure according to cases
3. Handle and select necessary surgical instruments on periodontal surgery
4. Practice periodontal surgery under the guidance of supervisory doctor

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
attendance	60%
oral examination	40%

その他

Texts will be delivered in every class.

2016年度

Periodontology (Advanced Periodontal Surgery)

(Periodontology (Advanced Periodontal Surgery))

開講年次	1 ~ 4 grades	期区分	通年	科目	Main subject (Clinical)	単位数	2
授業方法	講義・実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima K.						
	中島 啓介、臼井 通彦、村岡 宏祐、中村 太志、守下 昌輝、花谷 智哉						
担当教員	JSP Instructor : Nakashima K. JSCD Supervisor : Nakashima K. JSP Board Certified Periodontist : Usui M. , Muraoka K. JSCD Accredited Specialists : Usui M. , Muraoka K. JSP Periodontist : Nakamura T. , Morishita M. , Hanatani T.						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Flap operation using mucoperiosteal flap	lecture	Nakashima	Review
2	Flap operation using mucosal flap	lecture	Nakashima	Review
3	Flap operation You will practice flap operation using phantom and porcine jawbone.	practice	Nakashima	Review
4	Frenectomy	lecture	Morishita	Review
5	Vestibuloplasty	lecture	Morishita	Review
6	Periodontal plastic surgery (pedicle gingival graft)	lecture	Muraoka	Review
7	Periodontal plastic surgery (free gingival graft)	lecture	Hanatani	Review
8	Periodontal plastic surgery (connective tissue graft)	lecture	Hanatani	Review
9	Periodontal plastic surgery You will practice periodontal plastic surgery using phantom and porcine jawbone.	practice	Muraoka	Review
10	GTR method	lecture	Nakamura	Review
11	GTR method You will practice GTR method using phantom and porcine jawbone.	practice	Nakamura	Review
12	Emdogein	lecture	Usui	Review
13	Autogenous bone graft	lecture	Usui	Review
14	Assistance of periodontal plastic surgery You will assist periodontal plastic surgery in clinic.	practice	Hanatani	Review
15	Assistance of periodontal regenerative surgery You will assist periodontal regenerative surgery in clinic.	practice	Usui	Review

2016年度

Removable Prosthesis (Basic Course) (Removable Prosthesis (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Arita M.						
担当教員	有田 正博、中村 恵子 Accredited Specialist : Arita M. , Nakamura K. Supervisor of Prosthetic Dentistry : Arita M. , Nakamura K.						

授業の概要

【Language】 English and Japanese

For the patient who hopes for removable prosthetic treatment, you will learn clinical procedures and acquire the clinical maneuver. In addition, you will learn dental laboratory techniques associated with this clinical maneuver in parallel. Supervisor will evaluate whether or not you can fabricate an appropriate removable prosthesis by a clinical maneuver of oneself.

学生の到達目標

- ・ You can treat a removable prosthetic treatment for the partial edentulous patient.
- ・ You can treat a removable prosthetic treatment for the edentulous patient.
- ・ You can adjust of removable prosthesis.
- ・ You can repair of removable prosthesis.

テキスト

出) (著)

参考書

Complete denture technique
出) Ishiyaku Pub. Inc. (著)

Partial denture technique
出) Ishiyaku Pub. Inc. (著)

Prosthetic treatment for edentulous patients
出) Ishiyaku Pub. Inc. (著)

成績評価方法・基準

評価項目	割合
Case presentation: Partial (1), Complete (1)	30%
Case report: Partial (1), Complete (1)	20%
Denture repair or adjustment (5)	25%
Final test	25%

その他

2016年度

Removable Prosthesis (Basic Course) (Removable Prosthesis (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Arita M.						
担当教員	有田 正博、中村 恵子 Accredited Specialist : Arita M. , Nakamura K. Supervisor of Prosthetic Dentistry : Arita M. , Nakamura K.						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Preliminary impression Making of study cast	Practice	Arita M	Preliminary impression Study cast
3,4	Making of individual tray	Practice	Arita M	Individual tray
5,6	Border molding Precise impression	Practice	Arita M	Border molding Precise impression
7,8	Making of working cast Making of occlusal plate	Practice	Arita M	Working cast
9,10	Face-bow transfer Bite taking Mount of working cast to the articulator	Practice	Arita M	Face-bow transfer Bite taking
11,12	Gothic arch tracing Remount of lower working cast	Practice	Arita M	Gothic arch tracing
13,14	Adjustment of semi-adjustable articulator	Practice	Arita M	Adjustable articulator
15,16	Check-bite technique	Practice	Arita M	Check-bite
17,18	Occlusal adjustment	Practice	Arita M	Occlusal adjustment
19,20	Test 1, Discussion	Test	Arita M	
21,22	Denture adjustment 1 Direct reline method	Practice	Arita M	Tissue conditioning
23,24	Denture adjustment 2 Indirect reline method	Practice	Arita M	Reline
25,26	Denture adjustment 3 Occlusal adjustment Full balanced occlusion Lingualized occlusion	Practice	Arita M	Occlusal adjustment
27,28	Denture repair 1 Repair of base plate, artificial teeth, and clasp	Practice	Arita M	Denture repair
29,30	Test 2, Discussion	Test	Arita M	
31,32	Removable partial denture (case) Preliminary impression Study cast	Practice	Nakamura K	Preliminary impression Study cast
33,34	Removable partial denture (case) Design, individual tray	Practice	Nakamura K	Individual tray
35,36	Removable partial denture (case) Rest seat, border molding, Precise impression	Practice	Nakamura K	Border molding Precise impression
37,38	Removable partial denture (case) Working cast Occlusal plate	Practice	Nakamura K	Working cast

2016年度

Removable Prosthesis (Basic Course) (Removable Prosthesis (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Arita M.						
担当教員	有田 正博、中村 恵子 Accredited Specialist : Arita M. , Nakamura K. Supervisor of Prosthetic Dentistry : Arita M. , Nakamura K.						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
39,40	Removable partial denture (case) Bite taking Mount of working cast to the articulator	Practice	Nakamura K	Bite taking
41,42	Removable partial denture (case) Try-in	Practice	Nakamura K	Try-in
43,44	Removable partial denture (case) Set, adjustment patient education	Practice	Nakamura K	Set Patient education
45,46	Complete denture (case) Preliminary impression Study cast	Practice	Nakamura K	Preliminary impression Study cast
47,48	Complete denture (case) Individual tray	Practice	Nakamura K	Individual tray
49,50	Complete denture (case) Border molding, Precise impression	Practice	Nakamura K	Border molding Precise impression
51,52	Complete denture (case) Working cast Occlusal plate	Practice	Nakamura K	Working cast
53,54	Complete denture (case) Bite taking Mount of working cast to the articulator	Practice	Nakamura K	Bite taking
55,56	Complete denture (case) Try-in	Practice	Nakamura K	Try-in
57,58	Complete denture (case) Set, adjustment patient education	Practice	Nakamura K	Set Patient education
59,60	Test 3, Discussion Case presentation	Test	Nakamura K	

2016年度

Removable Prosthesis (Advanced Course) (Removable Prosthesis (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	実習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Masumi S.						
担当教員	鱒見 進一、槇原 絵理 Accredited Specialist : Masumi S. , Makihara E Supervisor of Prosthetic Dentistry : Masumi S. Accredited Specialist of Dental Magnetic Attachment : Masumi S. , Makihara E Accredited Specialist of Maxillofacial Prosthesis : Masumi S. , Makihara E						

授業の概要

【Language】 English and Japanese

You will learn a basic technique for the higher special technical acquisition

学生の到達目標

- ・ You can treat a removable prosthetic treatment with flange technique.
- ・ You can treat a removable prosthetic treatment with dental magnetic attachment.

テキスト

出) 著)

参考書

Complete denture Q&A

出)Nagasue Pub. Inc. 著)

Dental magnetic attachment Q&A

出)Ishiyaku Pub. Inc. 著)

成績評価方法・基準

評価項目	割合
Case presentation: Flange(1)	30%
Case presentation: Magnet (1)	30%
Case report: Flange(1)	10%
Case report: Magnet (1)	10%
Final test	20%

その他

2016年度

Removable Prosthesis (Advanced Course) (Removable Prosthesis (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	実習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Masumi S.						
担当教員	鱒見 進一、槇原 絵理 Accredited Specialist : Masumi S. , Makihara E Supervisor of Prosthetic Dentistry : Masumi S. Accredited Specialist of Dental Magnetic Attachment : Masumi S. , Makihara E Accredited Specialist of Maxillofacial Prosthesis : Masumi S. , Makihara E						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,1	Flange technique (case) Preliminary impression Study cast	Practice	Masumi S	Preliminary impression Study cast
3,4	Flange technique (case) Precise impression Working cast	Practice	Masumi S	Precise impression
5,6	Flange technique (case) Face-bow transfer Bite taking	Practice	Masumi S	Bite taking
7,8	Flange technique (case) Denture space taking	Practice	Masumi S	Denture space
9,10	Flange technique (case) Try-in Flange technique for gingival region	Practice	Masumi S	Try-in
11,12	Flange technique (case) Set, adjustment	Practice	Masumi S	Check-bite
13,14	Test 1 Case presentation	test	Masumi S	
15,16	Magnet denture (case) Design	Practice	Makihara E	Design
17,18	Magnet denture (case) Tooth preparation, impression	Practice	Makihara E	Tooth preparation
19,20	Magnet denture (case) Fix the Keeper Precise impression	Practice	Makihara E	Precise impression
21,22	Magnet denture (case) Bite taking	Practice	Makihara E	Bite taking
23,24	Magnet denture (case) Try-in	Practice	Makihara E	Try-in
25,26	Magnet denture (case) Fix the magnetic assembly	Practice	Makihara E	Magnetic assembly
27,28	Test 2 Case presentation	test	Makihara E	
29,30	Conclusion, final test	test	Makihara E	

2016年度

Removable Prosthesis (Advanced Course) (Removable Prosthesis (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	実習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Masumi S.						
担当教員	鱒見 進一、楨原 絵理 Accredited Specialist : Masumi S. , Makihara E. Supervisor of Prosthetic Dentistry : Masumi S. Accredited Specialist : Masumi S. , Makihara E. Supervisor of TMD : Masumi S.						

授業の概要

【Language】 English and Japanese
You will learn several mouthpieces.

学生の到達目標

- ・ You can treat of TMD with occlusal splint.
- ・ You can treat of Obstructive sleep apnea with oral appliance.
- ・ You can treat for sports athlete with mouth guard.

テキスト

出) (著)

参考書

- Occlusal splint therapy
出) Hyoron Pub. Inc. (著)
- Dental treatment of OSAS
出) Suna Book. (著)
- Manual of mouthguard
出) Quintessence Pub. Inc. (著)

成績評価方法・基準

評価項目	割合
Lecture report: OA (1), OS (1), MG (1)	30%
Case report: OA (1), OS (1), MG (1)	30%
Final test	40%

その他

2016年度

Removable Prosthesis (Advanced Course) (Removable Prosthesis (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	実習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Masumi S.						
担当教員	鱒見 進一、槇原 絵理 Accredited Specialist : Masumi S. , Makihara E. Supervisor of Prosthetic Dentistry : Masumi S. Accredited Specialist : Masumi S. , Makihara E. Supervisor of TMD : Masumi S.						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Oral appliance (case) Examination Decision of case	Practice	Makihara E	Oral appliance
3,4	Oral appliance (case) Precise impression Bite taking	Practice	Makihara E	Precise impression Bite taking
5,6	Oral appliance (case) Fabrication of OA	Practice	Makihara E	Fabrication of OA
7,8	Test 1 Case presentation	Test	Makihara E	
9,10	TMD (case) Examination Decision of case	Practice	Makihara E	TMD
11,12	TMD (case) Diagnose	Practice	Makihara E	Diagnosis
13,14	TMD (case) Precise impression Bite taking	Test	Makihara E	Precise impression Bite taking
15,16	TMD (case) Fabrication of occlusal splint	Practice	Makihara E	Fabrication
17,18	TMD (case) Set, adjustment	Practice	Makihara E	Adjustment
19,20	Test 2 Case presentation	Test	Makihara E	
21,22	Sports mouth guard (case) Examination Decision of case	Practice	Masumi S	Sports mouth guard
23,24	Sports mouth guard (case) Precise impression Bite taking	Practice	Masumi S	Precise impression Bite taking
25,26	Sports mouth guard (case) Set, adjustment	Practice	Masumi S	Adjustment
27,28	Test3 Case presentation	Test	Masumi S	
29,30	Conclusion, final test	Test	Masumi S	

2016年度

Removable Prosthodontics (Clinical Research Design) (Removable Prosthodontics (Clinical Research Design))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	4
授業方法	講義	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Masumi S.						
担当教員	鱒見 進一、槇原 絵理						

授業の概要

【Language】 English and Japanese
You will learn about clinical research design.

学生の到達目標

- ・ You can write of design of clinical research

テキスト

Designing clinical research
出) Lippincott Williams & Wilkins 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Evaluate by final test.	100%

その他

2016年度

Removable Prosthodontics (Clinical Research Design) (Removable Prosthodontics (Clinical Research Design))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	4
授業方法	講義	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Masumi S.						
担当教員	鱒見 進一、槇原 絵理						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Orientation	Lecture	Makihara E	Research question
3,4	Conceiving the research question	Lecture	Makihara E	Study sample
5,6	Choosing the study sample	Lecture	Makihara E	Measurements
7,8	Planning the measurements	Lecture	Makihara E	Questionnaire
9,10	Designing questionnaire	Lecture	Makihara E	Cohort study
11,12	Cohort study	Lecture	Makihara E	Cross-sectional study
13,14	Cross-sectional study	Lecture	Makihara E	Case-control study
15,16	Case-control study	Lecture	Makihara E	Clinical examination
17,18	Clinical examination	Lecture	Masumi S	Experimental research
19,20	Experimental research	Lecture	Masumi S	Sample size
21,22	Estimating sample size	Lecture	Masumi S	Ethical issues
23,24	Ethical issues	Lecture	Masumi S	Data analysis
25,26	Data analysis	Lecture	Masumi S	Research protocol
27,28	Research protocol	Lecture	Masumi S	Research question
29,30	Conclusion, final test	Test	Masumi S	

2016年度

Removable Prosthodontics (Medical Engineering Devices) (Removable Prosthodontics (Medical Engineering Devices))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Arita M.						
担当教員	有田 正博						

授業の概要

【Language】 English and Japanese
You will learn about clinical research design.

学生の到達目標

・ You will learn how to use of ME devices.

テキスト

Slide making by division
出)

著)

参考書

出)

著)

成績評価方法・基準

評価項目	割合
Lecture report: 5 points x 13	65%
Final test	35%

その他

2016年度

Removable Prosthodontics (Medical Engineering Devices) (Removable Prosthodontics (Medical Engineering Devices))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Arita M.						
担当教員	有田 正博						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Orientation	Lecture	Arita M	
3,4	Measurement of occlusal force	Lecture	Arita M	Occlusal force
5,6	Occluzer	Lecture	Arita M	Occluzer
7,8	Dental prescale	Lecture	Arita M	Dental prescale
9,10	Measurement of jaw movements	Lecture	Arita M	Jaw movements
11,12	MKG	Lecture	Arita M	MKG
13,14	Trimet	Lecture	Arita M	Trimet
15,16	Myo-monitor	Lecture	Arita M	Myo-monitor
17,18	Gothic display	Lecture	Arita M	Gothic display
19,20	Diagnosis of SAS	Lecture	Arita M	Diagnosis of SAS
21,22	Polysomnography	Lecture	Arita M	Polysomnography
23,24	Spirometer	Lecture	Arita M	Spirometer
25,26	Laser for dentistry	Lecture	Arita M	Laser for dentistry
27,28	CO2 Laser	Lecture	Arita M	CO2 Laser
29,30	Conclusion, final test	Test	Arita M	

2016年度

Removable Prosthodontics (Research Discussion)

(Removable Prosthodontics (Research Discussion))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakamura K.						
担当教員	鱒見 進一、有田 正博、中村 恵子、榎原 絵理、河野 稔広						

授業の概要

【Language】 English and Japanese

Gathering to read and discuss papers, articles, books, etc..

学生の到達目標

- ・ Critical thinking of research

テキスト

Up to presenter
出)

著)

参考書

Up to presenter
出)

著)

成績評価方法・基準

評価項目	割合
Evaluation of presentation	100%

その他

2016年度

Removable Prosthodontics (Research Discussion)

(Removable Prosthodontics (Research Discussion))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakamura K.						
担当教員	鱒見 進一、有田 正博、中村 恵子、槇原 絵理、河野 稔広						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1 ~ 15	Understanding of the future prospects of the study of the field of contents and association between background and latest documents of the study.	Journal club	Masumi M Arita M Makihara E Nakamura K Kawano T	selection

2016年度

Prosthodontics Implant supported Prosthesis (Prosthodontics Implant supported Prosthesis)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical	単位数	4
授業方法	講義・実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎 Accredited Specialist of Prosthodontics Dentistry : Hosokawa, Masaki, Kojo, Kondo, Tsuka, Supervisor of Prosthodontics Dentistry : Hosokawa, Accredited Specialist of Implant Dentistry : Hosokawa, Masaki, Supervisor of Implant Dentistry : Hosokawa,						

授業の概要

【Language】 English and Japanese

In this course, you will learn basic theories such as anatomy, diagnostic imaging, and the use of simulation software to pursue implant treatment safely and reliably. You will also need to learn broad clinical knowledge to make total treatment plans. You will be able to train yourselves on phantom or pig bone to place implant, to make incisions, to suture, to take impressions, and other procedures to acquire basic skills needed for implant treatment.

学生の到達目標

When you successfully complete this course, you will be able to explain:

- (1) history of dental implant,
- (2) anatomy needed for implant treatment,
- (3) the importance of diagnostic wax-up and stent and actually fabricate them,
- (4) healing process of dental implant,
- (5) basic theory of simulation software,
- (6) prosthodontics procedure for implant treatment,
- (7) importance of maintenance for implant treatment.

テキスト

Fundamental Concepts and Techniques of Oral Implants (2nd ed.)

出) ISHIYAKU PUBLISHERS, INC. 著)

Implant Positioning (Practice in Prosthodontics Extra Issue)

出) ISHIYAKU PUBLISHERS, INC. 著)

参考書

出)

著)

成績評価方法・基準

評価項目	割合
*1	60%
*2	40%

*1 Responses upon consultation with instructors during the practice

*2 Contents and attitudes at the case conferences

その他

2016年度

Prosthodontics Implant supported Prosthesis (Prosthodontics Implant supported Prosthesis)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical	単位数	4
授業方法	講義・実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎 Accredited Specialist of Prosthodontics Dentistry : Hosokawa, Masaki, Kojo, Kondo, Tsuka, Supervisor of Prosthodontics Dentistry : Hosokawa, Accredited Specialist of Implant Dentistry : Hosokawa, Masaki, Supervisor of Implant Dentistry : Hosokawa,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-4	Orientation “ What is implant supported prosthesis? ” You will learn about the significance of implant treatment in dental medicine.	Lecture	Hosokawa Masaki Kondo Tsuka	Review handouts
5-12	History of dental implant, clinical evidence, major implant system You will learn about fundamental concept of implant treatment based on implant history.	Lecture	Hosokawa Masaki Kojo	Review handouts
13-20	Anatomy important for implant treatment Pathology of dental implant You will learn about anatomy and pathology crucial for implant treatment.	Lecture	Hosokawa Masaki Kondo Tsuka	Review handouts
21-28	Preoperative diagnosis and treatment planning Case practice using Simplant (implant simulating software) You will practice using simulation software an actual cases and practice making a treatment plan.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
29-36	Diagnostic wax-up and stent fabrication You will prepare wax-up and fabricate diagnostic stent on ongoing patient.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
37-44	Implant placement surgical procedure You will learn about the total image of implant placement surgery by watching recorded tapes.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
45-52	Impression procedure and prosthodontics procedure You will learn about implant prosthesis of different implant system using case materials.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
53-60	Prosthesis by CAD/CAM, occlusal control and postoperative management You will learn about CAD/CAM prosthesis from actual cases.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts

2016年度

Prosthodontics Implant supported Prosthesis (Prosthodontics Implant supported Prosthesis)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	講義・実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎 Accredited Specialist of Prosthodontics Dentistry : Hosokawa, Masaki, Kojo, Kondo, Tsuka, Supervisor of Prosthodontics Dentistry : Hosokawa, Accredited Specialist of Implant Dentistry : Hosokawa, Masaki, Supervisor of Implant Dentistry : Hosokawa,						

授業の概要

【Language】 English and Japanese

In this course, after acquiring basic knowledge necessary, such as anatomy, diagnostic imaging and CT simulation, to make implant treatment plan, you will practice implant treatment on a patient. You will learn about advanced procedures such as bone grafts, sinus elevation, immediate loading, and immediate implant placement in the post-extraction site. You are expected to learn broad knowledge and acquire high skills of implant dentistry through case conferences and various lectures.

学生の到達目標

When you successfully complete this course, you will be able to:

- (1) explain advantages and disadvantages of implant treatment in comparison with other prosthodontics treatments.
- (2.)plan implant treatment by understanding basic principles of CT simulating software.
- (3) conduct implant placement surgery safely and reliably by undergoing necessary preoperative examinations.
- (4) practice supplemental operating methods such as bone graft, immediate loading and immediate implant placement in the post-extraction site by appropriately judging their necessity.
- (5) apply provisional prosthesis with knowledge of its significance and purpose.
- (6) fabricate adequate implant prosthesis.
- (7) perform implant maintenance with knowledge of its importance.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
*1	60%
*2	40%

*1 Responses upon consultation with instructors during the practice
*2 Contents and attitudes at the case conferences

その他

Latest Clinical Guide for Japanese Patient-oriented “ All-on-4 ” Treatment-Keys to Success in Immediate Loaded-Implant Treatment for Totally Edentulous Cases, ISHIYAKU PUBLISHERS, INC.
Implant Positioning (Practice in Prosthodontics Extra Issue), ISHIYAKU PUBLISHERS, INC.

2016年度

Prosthodontics Implant supported Prosthesis (Prosthodontics Implant supported Prosthesis)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	講義・実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎 Accredited Specialist of Prosthodontics Dentistry : Hosokawa, Masaki, Kojo, Kondo, Tsuka, Supervisor of Prosthodontics Dentistry : Hosokawa, Accredited Specialist of Implant Dentistry : Hosokawa, Masaki, Supervisor of Implant Dentistry : Hosokawa,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-4	Informed consent You will learn about the informed consent necessary for dental implant treatment.	Lecture and practice	Hosokawa Masaki Kojo	Review handouts
5-11	Diagnostic wax-up and diagnostic stent You will learn how to prepare diagnostic cast, diagnostic wax-up and to fabricate diagnostic stent.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
12-18	Treatment planning using simulating software on CT images You will learn how to use implant simulation software by working on difficult prosthodontics cases.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
19-25	Hands-on training to place implant with the instructor You will learn about the surgical procedure for implant placement.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
26-32	Bone graft, immediate loading and immediate implant placement in the post-extraction site You will learn about the supplemental operating methods for implant surgical procedure.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
33-39	Case report on the outcome of experienced implant treatment cases You will be required to make a case presentation and get feedbacks and evaluation from multiple instructors.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
40-46	Fabrication of provisional prosthesis with adequate occlusion You will learn about the timing and the technique to fabricate provisional prosthesis.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
47-53	Impression taking and implant denture fabrication You will learn about the fabrication of implant-supported dentures.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts
54-60	Postoperative management of dental implant treatment You will learn about postoperative management of dental implant treatment by studying actual cases.	Lecture and practice	Hosokawa Masaki Kondo Tsuka	Review handouts

2016年度

Oral Reconstruction and Rehabilitation (Oral Reconstruction and Rehabilitation)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎						

授業の概要

【Language】 English and Japanese

In this course, you should aim to master the art of capturing dental clinics in a scientific point of view by learning about translational research which act as intermediary between dental clinics and basic science. Some of the examples of such researches are as follows; investigating on ways to gain early osseointegration, factors controlling bone remodeling, risk factors concerning implant treatment by analyzing gene expression of oral mucosa, application of ultrasonic or very high frequency wave devices to speed up osseointegration, ways to recover functions of dysfunctional salivary glands and influence of the recovery of salivary glands on oral rehabilitation.

学生の到達目標

When you successfully complete this course, you will learn and acquire:

- (1) basic principles of implant treatment and be able to actually perform it.
- (2) knowledge and skills to analyze gene expression of human mucosa samples
- (3) basic knowledge and experimental skills to see the effects of ultrasounds on gene expression of oral mucosa cells.
- (4) basic knowledge and experimental skills on in vivo and in vitro xerostomia models using mouse salivary glands.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Attainment on the subject	70%
Attainment on the technique	30%

Each is required to make presentations on lectures and exercises adequately and will be evaluated upon an attainment on each subject. Attainment on the technique will also be evaluated and their distribution would be 70:30.

その他

Latest articles on the topic should be handed out before each lecture and exercise. Taking a lecture on animal experiments in advance is desirable.

2016年度

Oral Reconstruction and Rehabilitation (Oral Reconstruction and Rehabilitation)

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation (What is the significance of practicing basic research in clinical course?)	Lecture and exercise	Hosokawa Masaki	Review handouts
2	Literature reading 1 (How to read scientific literature? How should scientific presentation be like?)	Lecture and exercise	Hosokawa Kojo Kondo Tsuka	Review handouts
3	Literature reading 2 (How to search for referential materials? What makes your research valuable?)	Lecture and exercise	Hosokawa Masaki	Review handouts
4	How you should use the laboratory 1 (Basics in handling laboratory equipment)	Exercise	Hosokawa Masaki Kondo	Review handouts
5	How you should use the laboratory 2 (Basics in handling and preparing experimental reagents)	Exercise	Hosokawa Masaki Kondo	Review handouts
6	Gene extraction and analysis from oral mucosa samples 1 (Sampling and treatments)	Lecture and exercise	Hosokawa Masaki Kondo	Review handouts
7	Gene extraction and analysis from oral mucosa samples 2 (Analysis of genetic polymorphism)	Lecture and exercise	Hosokawa Masaki Tsuka	Review handouts
8	Investigation on the effect of ultrasonic waves on gene expression of oral mucosa cells	Lecture and exercise	Hosokawa Masaki Tsuka	Review handouts
9	Investigation on the effect of sialagogue on water secretion using mouse submandibular gland 1 (Learning the basics on epithelial membrane transport)	Lecture and exercise	Kondo Tsuka	Review handouts
10	Investigation on the effect of sialagogue on water secretion using mouse submandibular gland 2 (Basic principle and methods for perfusion experiments)	Exercise	Kondo Tsuka	Review handouts

2016年度

Oral Reconstruction and Rehabilitation (Oral Reconstruction and Rehabilitation)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎						

授業の概要

【Language】English and Japanese

This course is an advanced course for the “ Oral Reconstruction and Rehabilitation ” . In this course, you should aim to learn basic research methods based on theory by studying background of the research, planning experiments, getting data, analyzing data and discussing data with the colleges and instructors.

学生の到達目標

When you successfully complete this course, you will learn and acquire:

- (1) skills to analyze gene expression of human mucosa samples and put into practice to gain data.
- (2) basic knowledge and experimental skills to see the effects of ultrasounds on gene expression of oral mucosa cells and gain data from the experiment.
- (3) methods for perfusion experiments using mouse submandibular glands and gain data on dynamics of water secretion.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Attainment on the subject	70%
Attainment on the technique	30%

Each is required to make presentations on lectures and exercises adequately and will be evaluated upon an attainment on each subject. Attainment on the technique will also be evaluated and their distribution would be 70:30.

その他

Latest articles on the topic should be handed out before each lecture and exercise. Taking a lecture on animal experiments in advance is desirable.

2016年度

Oral Reconstruction and Rehabilitation (Oral Reconstruction and Rehabilitation)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation (Preparations for the experiment such as learning how to handle special experimental equipment and making reagents)	Lecture and exercise	Hosokawa Masaki Kondo	Review handouts
2	Gene extraction and analysis from oral mucosa samples 1 (Literature reading, learning basic skills, and planning experiments)	Lecture and exercise	Hosokawa Masaki Kojo Tsuka	Review handouts
3	Gene extraction and analysis from oral mucosa samples 2 (Sample taking from oral mucosa and pretreatments)	Exercise	Hosokawa Masaki Kondo	Review handouts
4	Gene extraction and analysis from oral mucosa samples 3 (Learning methods on PCR and electrophoresis)	Exercise	Hosokawa Masaki Tsuka	Review handouts
5	Investigation on the effect of ultrasonic waves on oral mucosa 1 (Literature reading and learning basic skills)	Lecture and exercise	Hosokawa Masaki Kondo	Review handouts
6	Investigation on the effect of ultrasonic waves on oral mucosa 2 (Learning how to set exposure conditions and how to analyze data)	Exercise	Hosokawa Masaki	Review handouts
7	Investigation on the effect of ultrasonic waves on oral mucosa 3 (Learning methods on PCR, western blotting and others)	Exercise	Hosokawa Masaki Kondo	Review handouts
8	Investigation on epithelial membrane transport of water using mouse submandibular gland 1 (Learning principles of aqua transport and getting basic skills)	Lecture and exercise	Kondo Tsuka	Review handouts
9	Investigation on epithelial membrane transport of water using mouse submandibular gland 2 (Learning how to handle experimental mice and how to operate under stereoscope)	Exercise	Kondo Tsuka	Review handouts
10	Investigation on epithelial membrane transport of water using mouse submandibular gland 3 (Perfusion experiments and data analysis)	Exercise	Kondo Tsuka	Review handouts

2016年度

Oral Reconstruction and Rehabilitation (Oral Reconstruction and Rehabilitation)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎						

授業の概要

【Language】 English and Japanese

In this course, you will select one research subject from ongoing research projects in the division. You should inquire into scientific background of the subject and draw up plans for the experiment. Then you should carry out preliminary experiments, give reconsideration to the plan and carry out experiments to get results. Once you got the results, inquire into those with criticism and build bases for the thesis.

Few examples for our division research projects are as follows.

- (1) Clinical research to investigate risk factors on immediate loaded oral implant treatment.
- (2) Clinical and basic research to investigate clinical diagnostic indicator for the loss of osseointegration.
- (3) Investigation on the effects of Low Intensity Pulsed Ultrasound and Ultrashort-wave devices in acquiring osseointegration.
- (4) Clinical and basic research to investigate the effect of xerostomia on oral health.

学生の到達目標

You should learn scientific background of the subject, inquire into the subject closely, and become a practitioner who can practice medicine based on evidence.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Attainment on the subject	70%
Attainment on the technique	30%

Each is required to make presentations on lectures and exercises adequately and will be evaluated upon an attainment on each subject. Attainment on the technique will also be evaluated and their distribution would be 70:30.

その他

Latest articles on the topic should be handed out before each lecture and exercise. Taking a lecture on animal experiments in advance is desirable.

2016年度

Oral Reconstruction and Rehabilitation (Oral Reconstruction and Rehabilitation)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation (Have discussion with the instructors on the theme of each research)	Lecture and exercise	Hosokawa Masaki Kojo Kondo Tsuka	Review handouts
2-15	Each instructor will be assigned to lead and carry out each research.	Lecture and exercise	Hosokawa Masaki Kojo Kondo Tsuka	Review handouts

2016年度

Advanced Oral Reconstruction and Rehabilitation (Advanced Oral Reconstruction and Rehabilitation)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compusory subject (Research) Subsidiary subject	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎						

授業の概要

【Language】 English and Japanese

This course will be in a seminar style using literature review, which include assigned readings and classroom discussions. Newly published research articles on implantology, prosthetic dentistry, bone biology, salivary research, periodontal research should be reviewed.

学生の到達目標

To acquire higher knowledge in the field, you should come to understand how to read an outline and scientific backgrounds of a scientific research paper, how to prepare handouts, which efficiently explain the topic, and how to use presentation software and make effective presentation slides.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Contents of the presentation	60%
*1	40%

Attendance, participation and comprehension in the discussion

その他

Latest articles on the topic should be handed out before each seminar.

2016年度

Advanced Oral Reconstruction and Rehabilitation (Advanced Oral Reconstruction and Rehabilitation)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compusory subject (Research) Subsidiary subject	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Hosokawa R.						
担当教員	細川 隆司、正木 千尋、小城 辰郎、近藤 祐介、柄 慎太郎						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Orientation	Exercise	Hosokawa Masaki Kojo Kondo Tsuka	Review handouts
2-15	Each allocated should review a paper of ones selection. You should prepare handouts and make a presentation.	Exercise	Hosokawa Masaki Kojo Kondo Tsuka	Review handouts

2016年度

Basic Studies in Community Oral Health (Basic Studies in Community Oral Health)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ansai T.						
担当教員	安細 敏弘、岩崎 正則、邵 仁浩、角田 聡子						
	Certified Dentists of the Japanese Society for Oral Health : Ansai, Iwasaki,						

授業の概要

【Language】 Japanese and English

You can learn the knowledge and practical skills of community oral health standard based health-oriented concept and minimum intervention concept. You can understand biofilm-related diseases such as dental caries and periodontal disease and treatment and prevention as well as clinical skills based health behavior.

学生の到達目標

You should achieve following assignments:

- (1) Acquisition of the fundamental knowledge and skills for standard precaution
- (2) Acquisition of communication skills
- (3) Acquisition of risk assessment by saliva- or bacterial tests
- (4) Acquisition of oral health instruction skills based on health-psychology
- (5) Acquisition of re-calcification strategy
- (6) Acquisition of community-based health practice along their life stage

テキスト

出) (著)

参考書

Handbook of Practical Preventive Dentistry 2004

出) Ishiyaku Publishers (著)

Preventive Periodontology 2007

出) Ishiyaku Publishers (著)

成績評価方法・基準

評価項目	割合
report	50%
oral presentations	30%
discussion	20%

その他

2016年度

Basic Studies in Community Oral Health (Basic Studies in Community Oral Health)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ansai T.						
担当教員	安細 敏弘、岩崎 正則、邵 仁浩、角田 聡子						
	Certified Dentists of the Japanese Society for Oral Health : Ansai, Iwasaki,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-2	Standard precaution You will learn basic knowledge and skills of standard precaution.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
3-4	Disinfectant and classification of Spaulding You will learn basic knowledge kinds of disinfectant and classification of Spaulding.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
5-6	Basic strategy of prevention of infection You will learn basic strategy of prevention of infection.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
7-10	Medical communication You will learn basic knowledge and skills of medical communication.	Lecture and Practice	Kakuta	Pre- and post-reading of textbook
11-15	WHO Oral Survey method and method of calibration You will learn the WHO Oral Survey method and method of calibration.	Lecture and Practice	Iwasaki	Pre- and post-reading of textbook
16-20	Diagnosis of dental caries and various device of dental caries You will learn up-to-date diagnosis of dental caries and its devices.	Lecture and Practice	Kakuta	Pre- and post-reading of textbook
21-24	Risk assessment by saliva- and bacterial based test You will learn basic knowledge of risk assessment of dental caries and periodontal disease, etc..	Lecture and Practice	Soh	Pre- and post-reading of textbook
25-29	Non-smoking health guidance based on behavioral science You will learn health guidance strategy of preventing smoking.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
30-34	Psychosocial tools and QOL assessment in clinical epidemiology You will learn basic knowledge of psychosocial tools and QOL assessment.	Lecture and Practice	Iwasaki	Pre- and post-reading of textbook
35-38	Basic fluoride application I (water fluoridation) You will learn basic fluoride application such as water fluoridation.	Lecture and Practice	Iwasaki	Pre- and post-reading of textbook
39-41	Basic fluoride application II (topical fluoridation) You will learn basic fluoride application such as topical fluoridation.	Lecture and Practice	Iwasaki	Pre- and post-reading of textbook
42-45	Theory and clinical practice of oral biofilm You will learn basic theory and clinical practice regarding oral biofilm.	Lecture and Practice	Kakuta	Pre- and post-reading of textbook
46-50	Theory and clinical practice of re-mineralization technique You will learn basic theory and clinical practice regarding re-mineralization of teeth.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
51-55	Health/social support according to their life stage I You will learn basic strategy of health/social support in school and work place.	Lecture and Practice	Soh	Pre- and post-reading of textbook
56-60	Health/social support according to their life stage II You will learn basic strategy of health/social support of the elderly.	Lecture and Practice	Soh	Pre- and post-reading of textbook

2016年度

Advanced Studies in Community Oral Health (Advanced Studies in Community Oral Health)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ansai T.						
担当教員	安細 敏弘、岩崎 正則、邵 仁浩、角田 聡子						
	Certified Dentists of the Japanese Society for Oral Health : Ansai, Iwasaki,						

授業の概要

【Language】Japanese

You can understand community system to support health strategy for community-dwelling population in the medical care, nursing care, and health care. Also, you can learn the knowledge and clinical skills based health behavior and health-oriented guidance.

学生の到達目標

You should achieve following assignments:

- (1) Acquisition of the fundamental knowledge regarding the system and roles of medical care, nursing care, and health care in community
- (2) Acquisition of the role of system of comprehensive care for elderly
- (3) Acquisition of health instruction and clinical skills based on behavioral psychology
- (4) Acquisition of health oriented program construction according to their life stage
- (5) Acquisition of clinical skills to promote oral health and medical support at emergency

テキスト

出) 著)

参考書

Community-based medicine 2009

出) Igakushoin 著)

Behavioral Medicine?A Guide for Clinical Practice, 3rd Ed. 2010

出) Medical Sci. Int 著)

成績評価方法・基準

評価項目	割合
report	50%
oral presentations	30%
discussion	20%

その他

2016年度

Advanced Studies in Community Oral Health (Advanced Studies in Community Oral Health)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ansai T.						
担当教員	安細 敏弘、岩崎 正則、邵 仁浩、角田 聡子						
	Certified Dentists of the Japanese Society for Oral Health : Ansai, Iwasaki,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-4	Outline of Community based oral health strategy I You will learn the knowledge regarding current status and roles of medical care, nursing care, and health care.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
5-10	Outline of Community based oral health strategy II You will learn the knowledge regarding the primary care as basic concept of medical care, nursing care, and health care.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
11-14	Outline of Community based oral health system I You will learn the knowledge regarding the system and roles of human resources, medical institutions, and local government.	Lecture and Practice	Iwasaki	Pre- and post-reading of textbook
15-20	Outline of Community based oral health system II You will learn the knowledge regarding the system and roles of nursing care, health and welfare.	Lecture and Practice	Iwasaki	Pre- and post-reading of textbook
21-25	Outline of Community based oral health system III You will learn the knowledge regarding the system and roles of community comprehensive care.	Lecture and Practice	Iwasaki	Pre- and post-reading of textbook
26-30	Outline of Community based oral health system IV You will learn the knowledge regarding the health guidance strategy and health support based on health promotion.	Lecture and Practice	Iwasaki	Pre- and post-reading of textbook
31-35	Outline of practical health guidance strategy I You will learn the knowledge regarding the concept and skills of health-communication.	Lecture and Practice	Soh	Pre- and post-reading of textbook
36-40	Outline of practical health guidance strategy II You will learn the knowledge regarding basic concept of health behavioral psychology and behavioral science.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
41-45	Details of practical health guidance strategy I You will learn the knowledge regarding the dietary education, eating behavior, and health support.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
46-49	Details of practical health guidance strategy II You will learn the knowledge regarding the non-smoking guidance program and health support.	Lecture and Practice	Kakuta	Pre- and post-reading of textbook
50-52	Health support / health guidance according to their life stage I You will learn the knowledge regarding health support/ guidance in maternal and child care stage.	Lecture and Practice	Soh	Pre- and post-reading of textbook
53-54	Health support / health guidance according to their life stage II You will learn the knowledge regarding health support/ guidance in school / puberty stage.	Lecture and Practice	Soh	Pre- and post-reading of textbook
55-56	Health support / health guidance according to their life stage III You will learn the knowledge regarding health support/ guidance in adults stage including health guidance in adults and occupational field.	Lecture and Practice	Kakuta	Pre- and post-reading of textbook
57-58	Health support / health guidance according to their life stage IV You will learn the knowledge regarding health support /guidance in elderly/care stage.	Lecture and Practice	Ansai	Pre- and post-reading of textbook
59-60	Oral health support at emergency You will learn the knowledge regarding the practical skills of oral health support program at emergency	Lecture and Practice	Ansai	Pre- and post-reading of textbook

2016年度

Practice in Community Oral Health (Practice in Community Oral Health)

開講年次	1 ~ 2 grades	期区分	通年	科目	Main Subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Soh I.						
担当教員	邵 仁浩、岩崎 正則						

授業の概要

【Language】 Japanese

This course deals with epidemiological and basic statistical knowledge to conduct oral health research. The aim of this course is to help students acquire an understanding of principles and methodologies of epidemiology by lectures, and an understanding of biostatistical concepts by analyzing data, using the statistical software.

学生の到達目標

By the end of the course, students should be able to do following;

- (1) Describe and explain the roles and relationships between epidemiology and biostatistics in the prevention of disease and the improvement of health.
- (2) Describe and explain methodologies of descriptive epidemiology for identifying problems and establishing hypotheses.
- (3) Describe and explain methodologies of analytical epidemiology for clarifying risk and protector factors of diseases.
- (4) Describe and explain the concept of confounding.
- (5) Conduct statistical analyses using the statistical software SPSS.

テキスト

Designing Clinical Research, 4th Edition 2013

出) A Guide for Clinicians & Laboratory 著) Stephen B Hulley

Medical Epidemiology, 4th Edition 2004

出) LANGE Basic Science 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
reports	40%
presentations	15%
preparations	45%

Post-lecture reports: 5 points*8, presentations: 15 points*1, preparations: 3 points*15. Total 100 points.

その他

2016年度

Practice in Community Oral Health (Practice in Community Oral Health)

開講年次	1 ~ 2 grades	期区分	通年	科目	Main Subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Soh I.						
担当教員	邵 仁浩、岩崎 正則						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Epidemiological theory 1 - Disease frequency You will learn disease frequency based on epidemiological indicators.	Lecture	Soh I	Learning material will be distributed in advance.
2	Epidemiological theory 2 - Designing research You will learn principles and methodologies of descriptive and analytical epidemiology and intervention study.	Lecture	Iwasaki M	Learning material will be distributed in advance.
3	Epidemiological theory 3 - Bias and confounding You will learn controlling methods of bias and confounding based on designing research.	Lecture	Iwasaki M	Learning material will be distributed in advance.
4	Epidemiological theory 4 - Causality You will learn causality based on designing research.	Lecture	Soh I	Learning material will be distributed in advance.
5	Epidemiological theory 5 - Formulating the research hypothesis You will learn formulating the research hypothesis based on literature research.	Lecture	Soh I	Learning material will be distributed in advance.
6	Health care service evaluation in oral health care policy You will learn health care service evaluation methods in oral health care policy based on concrete examples.	Lecture	Soh I	Learning material will be distributed in advance.
7	Oral health care data analysis 1 - summary statistics You will learn summary statistics, using the statistical software SPSS.	Lecture	Soh I	Learning material will be distributed in advance. Submit a report after the lecture.
8	Oral health care data analysis 2 - Univariate analysis You will learn Univariate analysis, using the statistical software SPSS.	Practice	Soh I	Learning material will be distributed in advance. Submit a report after the lecture.
9	Oral health care data analysis 3 - Multivariate analysis You will learn multivariate analysis, using the statistical software SPSS.	Practice	Soh I	Learning material will be distributed in advance. Submit a report after the lecture.
10	Oral health care data analysis 4 - Control of confounding You will learn control of confounding and interaction, using the statistical software SPSS.	Practice	Soh I	Learning material will be distributed in advance. Submit a report after the lecture.
11	Oral health care data analysis 5 - Relative risk You will learn relative risk and odds ratio, using the statistical software SPSS.	Practice	Soh I	Learning material will be distributed in advance. Submit a report after the lecture.

2016年度

Practice in Community Oral Health (Practice in Community Oral Health)

開講年次	1 ~ 2 grades	期区分	通年	科目	Main Subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Soh I.						
担当教員	邵 仁浩、岩崎 正則						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
12	Oral health care data analysis 6 - Multiple logistic regression analysis You will learn multiple logistic regression analysis, using the statistical software SPSS.	Practice	Soh I	Learning material will be distributed in advance. Submit a report after the lecture.
13	Oral health care data analysis 7 - Cox ' s proportional hazard model You will learn Cox ' s proportional hazard model, using the statistical software SPSS.	Practice	Soh I	Learning material will be distributed in advance. Submit a report after the lecture.
14	Oral health care data analysis 8 - More complicated models You will learn multilevel model and propensity score, presenting concrete examples.	Lecture	Iwasaki M	Learning material will be distributed in advance.
15	Research hypothesis presentation Give a presentation of formulating the research hypothesis of your interesting theme.	Practice	Soh I	Submit a report after the lecture.

2016年度

Practice in Community Oral Health (Practice in Community Oral Health)

開講年次	2 ~ 3 grades	期区分	通年	科目	Main Subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Iwasaki M.						
担当教員	岩崎 正則、安細 敏弘						

授業の概要

【Language】 Japanese

High-level scientific report is demanded. This course is designed for students who have basic statistical and epidemiological knowledge to conduct oral health research. The aim of this course is (1) to learn practical reporting skill for research preparation and scientific paper writing based on information provided by statistical analysis, and (2) to archive the practical skills for scientific presentation and writing the papers.

学生の到達目標

You should achieve following assignments;

- (1) Acquisition of effective data reporting methods in health science.
- (2) Acquisition of basic and advanced reporting methods for values and descriptive statistics.
- (3) Acquisition of effective way for presenting data using tables and figures.
- (4) Acquisition of effective presentation skills for research results in health science.

テキスト

How to Write, Publish, & Present in the Health Sciences: A Guide for Clinicians & Laboratory 2009

出) Amer College of Physicians 著)

Presentation Zen: Simple Ideas on Presentation Design and Delivery (2nd Ed.) 2011.

出) 著) Garr Reynolds

参考書

出) 著)

成績評価方法・基準

評価項目	割合
reports	40%
presentations	40%
debates	20%

その他

2016年度

Practice in Community Oral Health (Practice in Community Oral Health)

開講年次	2 ~ 3 grades	期区分	通年	科目	Main Subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Iwasaki M.						
担当教員	岩崎 正則、安細 敏弘						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Research design and guidelines for reporting research You will learn major guidelines about research design for biomedical research.	Lecture	Iwasaki M	Learning material will be distributed in advance.
2	Summarizing data 1 You will learn basic reporting methods for values and descriptive statistics.	Lecture	Ansai T	Learning material will be distributed in advance.
3	Summarizing data 2 You will learn advanced reporting methods for values and descriptive statistics.	Lecture	Ansai T	Learning material will be distributed in advance.
4	Presenting data and statistics using tables and figures 1 You will learn reporting methods for values and groups using tables and figures.	Lecture	Iwasaki M	Learning material will be distributed in advance.
5	Presenting data and statistics using tables and figures 2 You will learn reporting methods for comparison.	Lecture	Iwasaki M	Learning material will be distributed in advance.
6,7	Presentation methods in health science 1 You will learn effective way for poster presentation.	Lecture	Iwasaki M	Learning material will be distributed in advance.
8,9	Presentation methods in health science 2 You will learn effective way for oral presentation.	Lecture	Iwasaki M	Learning material will be distributed in advance. Submit a report after the lecture.
10,11	Practice effective reports and presentation 1. Revise your data or existing data.	Practice	Iwasaki M	Learning material will be distributed in advance.
12,13	Practice effective reports and presentation 2. Give a presentation of revised data.	Practice	Iwasaki M	Learning material will be distributed in advance.
13,14	Practice effective reports and presentation 3. Debate on the presentation.	Practice	Iwasaki M	Learning material will be distributed in advance. Submit a report after the lecture.
15	Summary Feedback for the presentation and debates. Introduce outstanding poster and oral presentations for reference of future research.	Lecture	Iwasaki M	Learning material will be distributed in advance.

2016年度

Current Topics in Community Oral Health (Current Topics in Community Oral Health)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject or elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ansai T.						
担当教員	安細 敏弘、岩崎 正則、邵 仁浩、角田 聡子						
	Certified Dentists of the Japanese Society for Oral Health : Ansai, Iwasaki,						

授業の概要

【Language】 Japanese and English

You can learn and study how to read any up-to-date scientific articles, write articles and make presentation regarding any outcomes to understand the knowledge and scientific significance in preventive/ oral health, public health, clinical nutrition and epidemiological research

学生の到達目標

To understand the contents of scientific articles, and acquire the skills for exploring any scientific evidence, and learn how to make presentation and write articles of any outcomes.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
report	50%
oral presentations	30%
discussion	20%

その他

2016年度

Current Topics in Community Oral Health (Current Topics in Community Oral Health)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject or elective	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ansai T.						
担当教員	安細 敏弘、岩崎 正則、邵 仁浩、角田 聡子						
	Certified Dentists of the Japanese Society for Oral Health : Ansai, Iwasaki,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	To understand the background, contents, and perspective of article interested in every time	Introduction of evidence and discussion	Ansai, Iwasaki, Soh, Kakuta	Preparing any needed handouts and slides for participants

2016年度

Internal Medicine for Dentistry (Internal Medicine for Dentistry)

開講年次	1 ~ 2 grades	期区分	後期	科目	Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日	金曜日	時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakamichi I.						
担当教員	中道 郁夫						

授業の概要

【Language】 English and Japanese

It is important to understand the dental implications of medical problems, for improving dental practice. In this course, we discuss about systemic diseases through the case presentation. After learning diagnostic methods and therapies of common diseases, you learn the pathophysiology for finding a new focus in clinical dentistry. Pathophysiological consideration, including cell biology and immunology, may enhance your doctoral thesis.

学生の到達目標

1. Understand etiology, diagnosis and therapy of common systemic disease.
2. Understand systemic disease's physiology that affects the dental practice.
3. Prevent systemic disease's exacerbation that is due to dental practice.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Learning attitude	50%
Oral examination	50%

その他

2016年度

Internal Medicine for Dentistry (Internal Medicine for Dentistry)

開講年次	1 ~ 2 grades	期区分	後期	科目	Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日	金曜日	時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakamichi I.						
担当教員	中道 郁夫						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-3	Circulation and Blood	Discussion	Reading books	Nakmichi
4-6	Respiration and Digestion	Discussion	Reading books	Nakmichi
7-9	Metabolism and Renal function	Discussion	Reading books	Nakmichi
10-12	Neurology and Mental disorder	Discussion	Reading books	Nakmichi
13-15	Immunology and Oncology	Discussion	Reading books	Nakmichi

2016年度

Diagnosis and Treatment of Hypertension (Diagnosis and Treatment of Hypertension)

開講年次	1 ~ 3 grades	期区分	前期	科目	Compulsory subject or elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuhara M.						
担当教員	福原 正代						

授業の概要

【Language】 Japanese

Hypertension is one of the most common diseases in Japan. Many dental patients have hypertension. In this course "Diagnosis and Treatment of Hypertension", you learn the evaluation of hypertension and target organ damage. Furthermore, you learn the treatment of hypertension. The course is especially recommended to graduate students, who specialize oral surgery and dental care in the elderly.

学生の到達目標

You should achieve following assignments;

- To understand the epidemiology of hypertension.
- To understand the mechanism of blood pressure regulation.
- To understand the evaluation of target organ damage due to hypertension.
- To understand target organ damage of hypertension (stroke, ischemic heart disease, chronic kidney disease).
- To understand the types and characteristics of antihypertensive drugs.
- To understand the characteristics and treatment of hypertension in the elderly.
- To understand the treatment of hypertension in the patients with diabetes or metabolic syndrome.

テキスト

The Japanese Society of Hypertension Guidelines for the Management of Hypertension 2014
出) JSH

著)

参考書

出)

著)

成績評価方法・基準

評価項目	割合
attendance	30%
attitude	20%
presentation	50%

その他

2016年度

Diagnosis and Treatment of Hypertension (Diagnosis and Treatment of Hypertension)

開講年次	1 ~ 3 grades	期区分	前期	科目	Compulsory subject or elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuhara M.						
担当教員	福原 正代						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Introduction and epidemiology of hypertension	Lecture	Fukuhara	Text
2	Mechanism of blood pressure regulation: Neural and humoral regulation of blood pressure	Lecture	Fukuhara	Text
3	Measurement and clinical evaluation of blood pressure	Lecture	Fukuhara	Text
4	Clinical evaluation of target organ damage I	Practice	Fukuhara	Text
5	Clinical evaluation of target organ damage II: Electrocardiogram and echocardiogram	Practice	Fukuhara	Text
6	Hypertension and target organ damage	Lecture	Fukuhara	Text
7	Principles of treatment for hypertension	Lecture	Fukuhara	Text
8	Principles of treatment for hypertension: Lifestyle modifications	Lecture	Fukuhara	Text
9	Principles of treatment for hypertension: Treatment with antihypertensive drugs	Lecture	Fukuhara	Text
10	Hypertension complicated by other diseases	Lecture	Fukuhara	Text
11	Hypertension in the elderly	Lecture	Fukuhara	Text
12	Secondary hypertension	Lecture	Fukuhara	Text
13	Case conference I	Lecture	Fukuhara	Text
14	Case conference II	Lecture	Fukuhara	Text
15	Case conference III	Lecture	Fukuhara	Text

2016年度

Introduction of Internal Medicine (Introduction of Internal Medicine)

開講年次	1 ~ 3 grades	期区分	前期	科目	Compulsory subject or elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuhara M.						
担当教員	福原 正代						

授業の概要

【Language】 Japanese

In this course "Introduction of Internal Medicine", you read the book "Introduction of Internal Medicine for the Dentistry, 3rd edition" and acquire fundamental knowledge of the internal medicine which dentists need.

学生の到達目標

You should achieve following assignments;

- To understand the introduction of medical diagnostics.
- To understand the cardiovascular disease.
- To understand the respiratory disease.
- To understand the digestive diseases.
- To understand the metabolic and endocrine disorders.
- To understand the neuromuscular disease.
- To understand the blood disease.
- To understand the renal disease.
- To understand the collagen disease.
- To understand the elderly medicine.

テキスト

Introduction of Internal Medicine for the Dentistry, 3rd edition
出) Nankodo 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
attendance	30%
tests	70%

その他

2016年度

Introduction of Internal Medicine (Introduction of Internal Medicine)

開講年次	1 ~ 3 grades	期区分	前期	科目	Compulsory subject or elective	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Fukuhara M.						
担当教員	福原 正代						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	The fundamental knowledge of the internal medicine: Diagnosis, medical interview, physical examination, medical record description, vital signs, laboratory tests.	Lecture and test	Fukuhara	Text
2	Cardiovascular disease I	Lecture and test	Fukuhara	Text
3	Cardiovascular disease II	Lecture and test	Fukuhara	Text
4	Respiratory disease	Lecture and test	Fukuhara	Text
5	Gastrointestinal disease	Lecture and test	Fukuhara	Text
6	Liver, biliary, pancreatic disease	Lecture and test	Fukuhara	Text
7	Endocrine disease	Lecture and test	Fukuhara	Text
8	Metabolic diseases	Lecture and test	Fukuhara	Text
9	Neuromuscular disease	Lecture and test	Fukuhara	Text
10	Blood disease	Lecture and test	Fukuhara	Text
11	Kidney disease	Lecture and test	Fukuhara	Text
12	Collagen disease and allergic disease	Lecture and test	Fukuhara	Text
13	Elderly medicine	Lecture and test	Fukuhara	Text
14	Review and test	Lecture and test	Fukuhara	Text
15	Review and test	Lecture and test	Fukuhara	Text

2016年度

Pediatric Dentistry (Basic Course) (Pediatric Dentistry (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、佐伯 桂、森川 和政 Pediatric Dentistry Specialist : Maki, Nishida, Fujita, Saeki, Morikawa, Specialist in Pediatric dentistry Specialist instruction : Maki, Nishida, Specialist with a disability dentistry authorization : Morikawa,						

授業の概要

To acquire comprehensive levels of knowledge, technique, and skill for continued management by taking into consideration physical and mental growth and development in childhood for guidance to normal permanent dentition.

学生の到達目標

1. Gain ability to provide treatment to pediatric patients.
2. Gain ability to treat dental caries.
3. Gain ability to provide protective care and health guidance.
4. Gain ability to treat dental injuries.
5. Gain ability to perform surgical treatment.
6. Gain ability to provide dental treatment for uncooperative or handicapped children.
7. Gain ability to deal with occlusal development.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
average of Tests	100%

その他

2016年度

Pediatric Dentistry (Basic Course) (Pediatric Dentistry (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、佐伯 桂、森川 和政 Pediatric Dentistry Specialist : Maki, Nishida, Fujita, Saeki, Morikawa, Specialist in Pediatric dentistry Specialist instruction : Maki, Nishida, Specialist with a disability dentistry authorization : Morikawa,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Medical care interview II	Practical training Role play	Maki Nishida Saeki Fujita Morikawa	Medical care interview Mental and physical growth of children
3,4	Behavior modification therapy for pedodontic patients I	Practical training Role play	Maki Nishida Saeki Fujita Morikawa	Mental and physical growth of children Behaviormodifi cation therapy
5,6	Radiography I	Practical training	Maki Nishida Saeki Fujita Morikawa	Radiography -Diagnostic imaging for pedodontic cases
7,8	Impression taking	Practical training	Maki Nishida Saeki Fujita Morikawa	Impression taking Developmental growth of oral cavity in children
9,10	Drafting of the treatment plan You learn a diagnosis, treatment strategy while standing on a medical interview, an X-ray photograph, the treatment plan using the study model about the drafting of the treatment plan	Practical training	Maki Nishida Saeki Fujita Morikawa	Examination of children Diagnosis, treatment strategy
11,12	Oral examination 1 Discussion Case presentation	Practical training	Maki Nishida Saeki Fujita Morikawa	
13,14	Local anesthesia I	Practical training	Maki Nishida Saeki Fujita Morikawa	Local anesthesia
15,16	Exclusion of moisture with rubber dam	Practical training	Maki Nishida Saeki Fujita Morikawa	Exclusion of moisture with rubber dam
17,18	Crown restoration for primary teeth I	Practical training	Maki Nishida Saeki Fujita Morikawa	Characteristics of primary teeth Coronal restoration

2016年度

Pediatric Dentistry (Basic Course) (Pediatric Dentistry (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、佐伯 桂、森川 和政 Pediatric Dentistry Specialist : Maki, Nishida, Fujita, Saeki, Morikawa, Specialist in Pediatric dentistry Specialist instruction : Maki, Nishida, Specialist with a disability dentistry authorization : Morikawa,						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
19,20	Crown restoration for immature permanent teeth I	Practical training	Maki Nishida Saeki Fujita Morikawa	Characteristics of immature permanent teeth Crown restoration
21,22	Inlay restoration of the deciduous teeth	Practical training	Maki Nishida Saeki Fujita Morikawa	Inlay restoration of the deciduous teeth
23,24	Preformed crown restoration of the deciduous teeth	Practical training	Maki Nishida Saeki Fujita Morikawa	Preformed crown restoration Casting crown restoration
25,26	Pulp capping of deciduous tooth and the immature permanent tooth	Practical training	Maki Nishida Saeki Fujita Morikawa	Pulp Capping
27,28	Pulpotomy to deciduous tooth	Practical training	Maki Nishida Saeki Fujita Morikawa	Pulpyomy
29,30	Pulpectomy、 Infection Root Canal Treatment 、 Root Canal Filling	Practical training	Maki Nishida Saeki Fujita Morikawa	Pulpectomy、 Infection Root Canal Treatment 、 Root Canal Filling
31,32	Oral examination 2 Discussion	Practical training	Maki Nishida Saeki Fujita Morikawa	
33,34	A diagnosis and measures of periodontal disease	Practical training	Maki Nishida Saeki Fujita Morikawa	Periodontal disease of the infant period A diagnosis and measures
35,36	Diagnosis of the dental trauma	Practical training	Maki Nishida Saeki Fujita Morikawa	Diagnosis Fixing method progmosis
37,38	Tooth extraction I	Practical training	Maki Nishida Saeki Fujita Morikawa	Diagnosis Tooth extraction

2016年度

Pediatric Dentistry (Basic Course) (Pediatric Dentistry (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、佐伯 桂、森川 和政 Pediatric Dentistry Specialist : Maki, Nishida, Fujita, Saeki, Morikawa, Specialist in Pediatric dentistry Specialist instruction : Maki, Nishida, Specialist with a disability dentistry authorization : Morikawa,						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
39,40	Resolution measure	Practical training	Maki Nishida Saeki Fujita Morikawa	Diagnosis Fenestration Incision
41,42	Oral examination 2 Discussion	Practical training	Maki Nishida Saeki Fujita Morikawa	
43,44	Preventive treatment	Practical training	Maki Nishida Saeki Fujita Morikawa	Pit and fissure sealant
45,46	Preventive treatment II	Practical training	Maki Nishida Saeki Fujita Morikawa	Preventive treatment Health guidance
47,48	Treatment of apprehensive child	Practical training	Maki Nishida Saeki Fujita Morikawa	Restraining Nitrous oxide and oxygen inhalation sedation
49,50	The Denture guidance diagnosis and explanation method to a protector	Practical training	Maki Nishida Saeki Fujita Morikawa	A diagnosis, a treatment plan and explanation
51,52	Preparation of appliances for occlusal guidance I	Practical training	Maki Nishida Saeki Fujita Morikawa	Space maintenance
53,54	Preparation of appliances for occlusal guidance II	Practical training	Maki Nishida Saeki Fujita Morikawa	Space Regainer
55,56	Dental treatment of the child with a disability	Practical training	Maki Nishida Saeki Fujita Morikawa	Child with a disability
57,58	Oral examination 4 Discussion		Maki Nishida Saeki Fujita Morikawa	

2016年度

Pediatric Dentistry (Basic Course) (Pediatric Dentistry (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、佐伯 桂、森川 和政 Pediatric Dentistry Specialist : Maki, Nishida, Fujita, Saeki, Morikawa, Specialist in Pediatric dentistry Specialist instruction : Maki, Nishida, Specialist with a disability dentistry authorization : Morikawa,						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
59,60	Case presentation Examination for accreditation		Maki Nishida Saeki Fujita Morikawa	

2016年度

Pediatric Dentistry (Advanced Course) (Pediatric Dentistry (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子 Pediatric Dentistry Specialist : Maki, Nishida, Specialist in Pediatric dentistry Specialist instruction : Maki, Nishida,						

授業の概要

To acquire comprehensive levels of knowledge, technique, and skill for continued management by taking into consideration physical and mental growth and development in childhood for guidance to normal permanent dentition.

学生の到達目標

1. Gain ability to provide treatment to pediatric patients.
2. Gain ability to treat dental caries.
3. Gain ability to provide protective care and health guidance.
4. Gain ability to treat dental injuries.
5. Gain ability to perform surgical treatment.
6. Gain ability to provide dental treatment for uncooperative or handicapped children.
7. Gain ability to deal with occlusal development.
8. Gain ability to provide basic treatment for the oral cavity as a single unit.
9. Gain ability to practice continuous management by taking growth into consideration.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
average of Tests (1) and (2)	100%

その他

2016年度

Pediatric Dentistry (Advanced Course) (Pediatric Dentistry (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子						
	Pediatric Dentistry Specialist : Maki, Nishida, Specialist in Pediatric dentistry Specialist instruction : Maki, Nishida,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Medical care interview II	Practical training Role play	Maki Nishida	Medical care interview Adjacent area of medical science
3,4	Behavior modification therapy for pedodontic patients II	Practical training Role play	Maki Nishida	Mental and physical growth of children -Behavior modification therapy
5,6	Radiography II	Practical training	Maki Nishida	Radiography ・ Diagnostic imaging for pedodontic cases
7,8	Oral roentgenography	Practical training	Maki Nishida	Intraoral photography Developmental growth of oral cavity in children
9,10	Whole-body management	Practical training	Maki Nishida	Pharmacother apy Systemic illness
11,12	Oral examination 1 Discussion Case presentation	Practical training	Maki Nishida	
13,14	Local anesthesia II	Practical training	Maki Nishida	Local anesthesia Complications
15,16	Crown restoration for primary teeth I	Practical training	Maki Nishida	Characteristics of primary teeth Resin jacket crown
17,18	Crown restoration in child patients	Practical training	Maki Nishida	Crown restoration Continued management
19,20	Temporary indirect pulp capping for immature permanent teeth	Practical training	Maki Nishida	Immature permanent teeth Temporary indirect pulp capping

2016年度

Pediatric Dentistry (Advanced Course) (Pediatric Dentistry (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子 Pediatric Dentistry Specialist : Maki, Nishida, Specialist in Pediatric dentistry Specialist instruction : Maki, Nishida,						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
21,22	Endodontic treatment for immature permanent teeth	Practical training	Maki Nishida	immature permanent teeth Endodontic treatment
23,24	Diagnosis and treatment for acute symptoms of diseases of the pulp, apex, and periodontium	Practical training	Maki Nishida	An acute symptom Diagnosis and treatment
25,26	Diagnosis and treatment for tooth discoloration	Practical training	Maki Nishida	tooth discoloration Diagnosis and treatment
27,28	Study how to deal with intractable cases of diseases of the pulp, apex, and periodontium in light of deciduous and immature permanent tooth characteristics, indications, and operative procedures.	Practical training	Maki Nishida	Intractable cases Diagnosis and treatment
29,30	Oral examination 2 Discussion	Practical training	Maki Nishida	
31,32	Study continuing management of periodontal diseases in child patients in light of the characteristics of periodontal diseases occurring in childhood.	Practical training	Maki Nishida	- Periodontal surgery - Continuing management
33,34	Fixation techniques for injured teeth Study fixation methods for mixed dentition period in light of fixation techniques used for injured teeth.	Practical training	Maki Nishida	- Diagnosis - Fixation technique - Prognosis
35,36	Treatment of injured teeth Study reimplantation techniques in light of related indications. Practical training	Practical training	Maki Nishida	- Injured teeth - Reimplantation - Orthodontic extrusion
37,38	Tooth extraction II Study tooth extraction methods in light of examination findings and diagnosis of impacted supernumerary teeth.	Practical training	Maki Nishida	Extraction methods Impacted supernumerary teeth
39,40	Surgical procedures Study surgical procedures for child patients in light of diagnosis and treatment of cysts, tumors, and soft tissue disease.	Practical training	Maki Nishida	Surgical procedures
41,42	Oral examination 3 Discussion	Practical training	Maki Nishida	
43,44	Preparation of appliances for occlusal guidance III	Practical training	Maki Nishida	Space regainer
45,46	Preparation of appliances for occlusal guidance Study methods used for manufacturing a Muh-shield by taking into consideration the indications.	Practical training	Maki Nishida	Muh-shield
47,48	Muscle function training	Practical training	Maki Nishida	Muscle function training

2016年度

Pediatric Dentistry (Advanced Course) (Pediatric Dentistry (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子 Pediatric Dentistry Specialist : Maki, Nishida, Specialist in Pediatric dentistry Specialist instruction : Maki, Nishida,						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
49,50	Dental therapy for disabled child patients II Study how to cope with dental therapy for disabled children in light of characteristics of the related disease	Practical training	Maki Nishida	Disabled children Behavior control Dental therapy
51,52	Study methods of dental therapy performed under general anesthesia by taking into consideration the characteristics and general health of child patients. Practical training	Practical training	Maki Nishida	General anesthesia
53,54	Study intraoral management by taking developmental stage into consideration. Practical training	Practical training	Maki Nishida	Developmental stages -ntraoral management
55,56	Study maternal and child health guidance in light of prevention for pregnant women and feeding instructions for children.	Practical training	Maki Nishida	Pregnancy factors Maternal and child health care
57,58	Oral examination 4 Discussion		Maki Nishida	
59,60	Case presentation Examination for accreditation		Maki Nishida	

2016年度

Developmental Stomatognathic Function Science (Developmental Stomatognathic Function Science)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Reserch)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、森川 和政、佐伯 桂						

授業の概要

For providing comprehensive pedodontic treatment, lectures on topics ranging from basic medicine to the latest state-of-the-art therapies are given by lead instructors. The students then organize and analyze related studies, and make a presentation.

学生の到達目標

1. Deepen knowledge regarding clinical pedodontic care in general and ability to understand it.
2. Understand basic medicine (anatomy, histology, etc.) in order to conduct clinical pedodontic practice.
3. Master methods needed to prepare materials for both presentation and clinical practice.
4. Gain ability to collect and organize appropriate research articles, and analyze them.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
average of Tests (1) and (2)	100%

その他

2016年度

Developmental Stomatognathic Function Science (Developmental Stomatognathic Function Science)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、森川 和政、佐伯 桂						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	orientation	Lecture	Maki	Practice Pediatric dentistry outline
2	Growth of teeth and the dentition	Lecture Prsctuce	Fujita	Case report, commentary of the topics about pediatric dentistry
3	Mechanism of the teeth rruption	Lecture Prsctuce	Morikawa	Case report, commentary of the topics about pediatric dentistry
4	Endodontic treatment of the deciduous tooth	Lecture Prsctuce	Saeki	Case report, commentary of the topics about pediatric dentistry
5	Endodontic treatment of the immature permanebt tooth	Lecture Prsctuce	Maki	Case report, commentary of the topics about pediatric dentistry
6	Teeth trauma of the childhood	Lecture Prsctuce	Nishida	Case report, commentary of the topics about pediatric dentistry
7	Space Maintenance	Lecture Prsctuce	Maki	Case report, commentary of the topics about pediatric dentistry
8	Active Denture Guidance	Lecture Prsctuce	Maki	
9	Coronal restoration of deciduous tooth and the early permanent tooth	Lecture Prsctuce	Nishida	Case report, commentary of the topics about pediatric dentistry
10	Dental treatment of the child with a disability	Lecture Prsctuce	Morikawa	Case report, commentary of the topics about pediatric dentistry
11	Correspondence to trauma teeth of the childhood	Lecture Prsctuce	Nishida	Case report, commentary of the topics about pediatric dentistry
12	Surgical treatment of children (I)	Lecture Prsctuce	Maki	Case report, commentary of the topics about pediatric dentistry

2016年度

Developmental Stomatognathic Function Science (Developmental Stomatognathic Function Science)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、森川 和政、佐伯 桂						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
13	Surgical treatment of children (II)	Lecture Prsctuce	Maki Nishida Fujita Morikawa Saeki	Case report, commentary of the topics about pediatric dentistry
14	Generl Discussion	Lecture Prsctuce	Maki	Case report, commentary of the topics about pediatric dentistry
15	Test	Lecture Prsctuce	Maki	Case report, commentary of the topics about pediatric dentistry

2016年度

Developmental Stomatognathic Function Science (Case Conference) (Developmental Stomatognathic Function Science (Case Conference))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、森川 和政、佐伯 桂						

授業の概要

Read published studies to increase understanding of the latest research trends in pedodontics and those related to bone morphometry. Conduct debriefing and discussion sessions regarding the content and progress status of each study, and present seminars by osteologists in other basic medicine fields.

学生の到達目標

Improve the ability to read studies written in English.
Gain ability to understand the content of published studies.
Improve the capability to comment regarding research activates.
Gain ability to understand the trend and background of the study, and enhance knowledge.
Enhance knowledge by obtaining the latest information in regard to pedodontics and bone morphometry.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
average of Tests	100%

その他

2016年度

Developmental Stomatognathic Function Science (Case Conference) (Developmental Stomatognathic Function Science (Case Conference))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Research)	単位数	2
授業方法	演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Maki K.						
担当教員	牧 憲司、西田 郁子、藤田 優子、森川 和政、佐伯 桂						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	By taking into consideration the background of the study, contents of recent reports in the field of pedodontics and those related to bone morphometry, and the results of studies performed in related fields, gain ability to understand the application of those findings to both research and clinical practice.	Discussion Commentary	Maki K Nishida I Saeki K Fujita Y Morikawa K	Original Articles, commentary of the topics about pediatric dentistry

2016年度

Orthodontics (Basic) (Orthodontics (Basic))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical) Miner	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業の概要

【Language】 Japanese

You will master the basic knowledge of Orofacial orthodontics through understanding about planning and implementing of clinical research.

学生の到達目標

You should achieve following assignments.

1. Analysis of the various information required for diagnosis, can be summed up.
2. To understand the biological and bio-mechanical fundamentals required for orthodontic treatment.
3. Analysis and evaluation of Orofacial function.
4. To understand the indications and mechanism of action of orthodontic appliances.
5. To understand the physiological and pathological problems with jaw deformities, cleft lip and cleft palate.
6. To understand the biology of bone and soft tissue.
7. To understand the principle of the dentition and occlusion of Craniofacial growth and development.
8. To understand and implement of the occlusion with development concepts.
9. To understand the pathogenesis of congenital diseases.
10. To understand the materials of orthodontic.

テキスト

出) 著)

参考書

- Orthodontics to dental students
出)Ishiyaku publishers 著)Yamauchi k., Sakuta M.
- Contemporary orthodontics
出) 著)W. R. Proffit
- Elements of Orthodontics
出) 著)Takada K.
- Orthodontic clinical series 1 "malocclusion"
出)Ishiyaku publishers 著)Susami T., Chugo T.
- Orthodontic clinical series 2 "malocclusion"
出)Ishiyaku publishers 著)Yamauchi k., Sakuta M.
- Orthodontic clinical series 3 "open bite"
出)Ishiyaku publishers 著)Kawada T., Ozeki T.
- Orthodontic clinical series 4 "crowding"
出)Ishiyaku publishers 著)Matsumoto M., Nakagawa H.
- Essential of Oral Histology and Embryology
出)The C.V.Mosby Company 著)James K. Avery
- Development of oral Histology, Structure, and Function
出)The C.V. Mosby Company 著)A.R. Ten Cate
- Handbook of Facial Growth
出)W. B. Saunders Company 著)Donald H. Enlow

2016年度

Orthodontics (Basic) (Orthodontics (Basic))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical) Miner	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

成績評価方法・基準

評価項目	割合
Tests	100%

After the lecture to the exam (exam and lab).
Each lecture and lab personnel to questions. Answers to written.

その他

2016年度

Orthodontics (Basic) (Orthodontics (Basic))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical) Miner	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjigake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Preparation of diagnostic materials, impression, creating a gnathostatic model, Cephalometric tracing, Model analysis, Cephalometric analysis You will master the method of the evaluation skills based on basic diagnostic data.	Lecture Practice	Kawamoto	Review of reference books and handouts
2	Diagnostics, Tooth extraction, Model set-up, Treatment planning, Orthodontic appliance. You will master basic treatment planning and treatment methods skills based on basic diagnostic.	Lecture Practice	Kawamoto	Review of reference books and handouts
3	Diagnostic imaging of the CT and MRI You will learn the relevant cases and imaging, based on the basic diagnostic imaging.	Lecture Practice	Kawamoto	Review of reference books and handouts
4	Orofacial function, jaw movement, chewing, biting, chewing efficiency, Temporomandibular disorders. You will master the method of the evaluation skills about basic Orofacial function tests, methods, results based on the relevance of cases.	Lecture	Gunjigake	Review of reference books and handouts
5	Orthodontic force and tooth movement, Anchorage, Biologic control of tooth movement, Orthodontic implants You will master the principles of tooth movement and learn the orthotic devices.	Lecture	Kuroishi	Review of reference books and handouts
6	Tissue reactions and orthodontic force You will learn about tooth movement and periodontal tissue reactions caused by orthodontic treatment which include root resorption, the reactions of blood flow in the periodontal ligament and hyaline.	Lecture	Kuroishi	Review of reference books and handouts
7	Orthopedic force and reactions. You will learn about the reaction and growth change of the bone caused by orthopedic force which include growth of cartilages and growth of bone sutures.	Lecture	Kuroishi	Review of reference books and handouts
8	Bone metabolism, Bone biology, Molecular cell biology You will learn about the bone metabolism based on work on the orthodontic tooth movement periodontal tissue cells.	Lecture	Kuroishi	Review of reference books and handouts
9	Materials science on orthodontic materials You will learn about the characteristics of the materials required for orthodontic treatment and its selection	Lecture	Gunjigake	Review of reference books and handouts
10	Each orthodontic appliance usage and mechanisms of action You will learn about the basic orthodontic structure and mechanism of action, indications, considerations.	Lecture	Gunjigake	Review of reference books and handouts
11	Multibracket technique You will learn about multibracket structure and active orthodontic treatment	Lecture Practice	Gunjigake	Review of reference books and handouts
12	Orthodontic treatment for facial deformity You will learn about surgical orthodontic treatment based on facial deformity for therapeutic purpose, indications, treatment procedures.	Lecture	Morita	Review of reference books and handouts
13	Malocclusion due to congenital anomalies You will learn about malocclusion due to congenital anomalies, which include causes, systemic findings and malocclusion.	Lecture	Morita	Review of reference books and handouts

2016年度

Orthodontics (Basic) (Orthodontics (Basic))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical) Miner	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
14	Bone graft for patient of cleft lip and palate You will learn about secular orthodontic treatment for cleft lip and palate and learn growth and development	Lecture	Morita	Review of reference books and handouts
15	Retention and retainers (Removable, fixed) You will learn about various types of retainers and static treatment based on physiological and orthodontic treatment	Lecture	Morita	Review of reference books and handouts
16	Myofunctional therapy (MFT) You will learn about prevention and treatment and the effects of bad habit to individual dental arch.	Lecture	Takiguchi	Review of reference books and handouts
17	Dentition and occlusion, and Craniofacial growth and development You will learn about Craniofacial growth and development, tooth, dentition and occlusion, normal growth and development.	Lecture	Takiguchi	Review of reference books and handouts
18	Growth and development with orthodontic treatment You will learn about various types of malocclusion and secular treatment based on the growth and development	Lecture	Takiguchi	Review of reference books and handouts
19	Occlusion with development concepts You will learn about Occlusion with development based on secular growth and development, malocclusion.	Lecture	Takiguchi	Review of reference books and handouts
20	A comprehensive dental treatment You will learn about team approach with overall treatment for oral.	Lecture	Kawamoto	Review of reference books and handouts

2016年度

Orthodontics (Basic) (Orthodontics (Basic))

開講年次	1 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	1
授業方法	実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業の概要

【Language】 Japanese

You will learn about the optimal materials needed for clinical research and analysis. You will learn about the basic orthodontic appliances and the mechanism of reaction.

学生の到達目標

You should achieve following assignments.

1. To understand about taking materials for clinical research.
2. To understand the mechanism of reaction of the orthodontic treatment, can be constructed.
3. To understand the Orofacial function and analysis and evaluation.
4. To get ability of creating the materials for the presentation and utilization.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
	100%

Judgements by all of the instructors. Impression, gnathostatic model, oral photo, round and rectangular wire bending, ideal arch bending, cephalometric tracing, tracing evaluation, etc

その他

[Books]

Basic practice manual, Comprehensive diagnostic manual for 4 grades student.

2016年度

Orthodontics (Basic) (Orthodontics (Basic))

開講年次	1 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	1
授業方法	実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Preparation of diagnostic materials (Oral photo, Facial photo) impression, creating a gnathostatic model, Cephalometric tracing, Model analysis, Cephalometric analysis You will master the method of the diagnostic material taking skills with oral photo and facial photo.	Practice	Kuroishi	Preparation for a basic practice manual, a comprehensive diagnostic manual
2	Preparation of diagnostic materials (impression, gnathostatic model) You will master the method of impression and taking diagnostic materials for creating a gnathostatic model based on the technique of snap impression using alginate impression material and face bow instrument.	Practice	Kuroishi	Preparation for a basic practice manual, a comprehensive diagnostic manual
3	Preparation of diagnostic materials (impression, gnathostatic model) You will master the method of impression and taking diagnostic materials for creating a gnathostatic model based on the technique of snap impression using alginate impression material and face bow instrument.	Practice	Kuroishi	Preparation for a basic practice manual, a comprehensive diagnostic manual
4	Basic practice (Lingual arch) You will master the technique of the lingual arch and method of adjustment.	Practice	Gunjigake	Preparation for a basic practice manual, a comprehensive diagnostic manual
5	Basic practice (Lingual arch) You will master the technique of the lingual arch and method of adjustment.	Practice	Gunjigake	Preparation for a basic practice manual, a comprehensive diagnostic manual
6	Basic practice (Lingual arch) You will master the technique of the lingual arch and method of adjustment.	Practice	Gunjigake	Preparation for a basic practice manual, a comprehensive diagnostic manual
7	Basic practice (Activator) You will learn the method of construction bite and functional orthodontic appliances and method of adjustment.	Practice	Takiguchi	Preparation for a basic practice manual, a comprehensive diagnostic manual
8	Basic practice (Activator) You will learn the method of construction bite and functional orthodontic appliances and method of adjustment.	Practice	Takiguchi	Preparation for a basic practice manual, a comprehensive diagnostic manual
9	Basic practice (Activator) You will learn the method of construction bite and functional orthodontic appliances and method of adjustment.	Practice	Takiguchi	Preparation for a basic practice manual, a comprehensive diagnostic manual

2016年度

Orthodontics (Basic) (Orthodontics (Basic))

開講年次	1 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	1
授業方法	実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
10	Basic practice (Retainer) You will learn about Begg type retainer and method of adjustment.	Practice	Morita	Preparation for a basic practice manual, a comprehensive diagnostic manual
11	Basic practice (Retainer) You will learn about Begg type retainer and method of adjustment.	Practice	Morita	Preparation for a basic practice manual, a comprehensive diagnostic manual
12	Orofacial function and analysis and evaluation You will learn basic Orofacial function inspection equipment based on its usage method and analysis data.	Practice	Morita	Preparation for a basic practice manual, a comprehensive diagnostic manual
13	Orofacial function and analysis and evaluation You will learn basic Orofacial function inspection equipment based on its usage method and analysis data.	Practice	Kawamoto	Preparation for a basic practice manual, a comprehensive diagnostic manual
14	Presentation Based on the usage of digital data capture and PowerPoint, Photo shop, learn to create a presentation.	Practice	Kawamoto	Preparation for a clinical manual
15	Presentation Based on the usage of digital data capture and PowerPoint, Photo shop, learn to create a presentation.	Practice	Kawamoto	Preparation for a clinical manual

2016年度

Orthodontics (Typodont exercise) (Orthodontics (Typodont exercise))

開講年次	1 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	1
授業方法	実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業の概要

【Language】 Japanese
To understand the mechanics of proper tooth movement and performed on typodont.

学生の到達目標

- You should achieve following assignments.
1. To understand relationships of tooth movement to orthodontic force.
 2. To understand the frictional resistance of wires and brackets.
 3. To understand the relationship of forces to moments.
 4. To understand necessity of anchorage about intramaxillary anchorage, intermaxillary anchorage, extraoral anchorage.
 5. To understand the properties of the wire.

テキスト

出) 著)

参考書

- Orthodontics to dental students
出) Ishiyaku publishers 著) Yamauchi k., Sakuta M.
- Contemporary orthodontics
出) 著) W. R. Profitt
- Elements of Orthodontics
出) 著) Takada K.
- Common Sense Mechanics
出) 著) Thomas. Mulligan
- Biomechanics in Orthodontics, Ram S
出) Nanda Bioengineering Analysis of Orthodontic Mechanics 著) Robert J. Nikolai

成績評価方法・基準

評価項目	割合
	100%

Receive the evaluation of the instructor for each step. In addition, students have to present each steps and discuss.

その他

2016年度

Orthodontics (Typodont exercise) (Orthodontics (Typodont exercise))

開講年次	1 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	1
授業方法	実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Preparation of Typodont 1 You will master the method of Multibracket therapy through brackets bonding, brackets positioning for full metal tooth and preparation of the molar band, electrical soldering.	Practice	Kuroishi	Typodont syllabus preparation and review
2	Preparation of Typodont 1 You will master the method of Multibracket therapy through brackets bonding, brackets positioning for full metal tooth and preparation of the molar band, electrical soldering.	Practice	Kuroishi	Typodont syllabus preparation and review
3	Preparation of Typodont 1 You will master the method of Multibracket therapy through brackets bonding, brackets positioning for full metal tooth and preparation of the molar band, electrical soldering.	Practice	Kuroishi	Typodont syllabus preparation and review
4	Wire bending 1 Learn about standard edgewise arch wire morphology and bending round wire.	Practice	Takiguchi	Typodont syllabus preparation and review
5	Wire bending 2 Learn about standard edgewise rectangular wire and bend.	Practice	Takiguchi	Typodont syllabus preparation and review
6	Wire bending 3 Learn about the adjustment of the arch wire and bending.	Practice	Takiguchi	Typodont syllabus preparation and review
7	Typodont 1 (leveling) You will learn the early changes of malocclusion by multibracket system based on physiological responses.	Practice	Gunjigake	Typodont syllabus preparation and review
8	Typodont 2 (leveling) You will learn the early changes of malocclusion by multibracket system based on physiological responses.	Practice	Gunjigake	Typodont syllabus preparation and review
9	Typodont 3 (Canine tooth retraction) You will learn the purpose of distal movement of canine tooth and the method and considerations.	Practice	Gunjigake	Typodont syllabus preparation and review
10	Typodont 3 (Canine tooth retraction) You will learn the purpose of distal movement of canine tooth and the method and considerations.	Practice	Morita	Typodont syllabus preparation and review
11	Typodont 5 (Incisors retraction) You will learn distal movement of incisors of multibracket method based on high need presence about reinforced anchorage, incisor torque control, arch width control.	Practice	Morita	Typodont syllabus preparation and review
12	Typodont 5 (Incisors retraction) You will learn distal movement of incisors of multibracket method based on high need presence about reinforced anchorage, incisor torque control, arch width control.	Practice	Morita	Typodont syllabus preparation and review
13	Typodont 7 (Ideal arch, Finish) You will learn to establish a normal occlusion based on physiological and orthodontic equipment	Practice	Kawamoto	Typodont syllabus preparation and review
14	Typodont 7 (Ideal arch, Finish) You will learn to establish a normal occlusion based on physiological and orthodontic equipment	Practice	Kawamoto	Typodont syllabus preparation and review

2016年度

Orthodontics (Typodont exercise) (Orthodontics (Typodont exercise))

開講年次	1 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	1
授業方法	実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
15	Typodont presentation (Course description) To understand the multi-bracket system method by describing the progress of the whole for typodont practice.	Presentation	Kawamoto	Typodont syllabus preparation and review

2016年度

Orthodontics (Clinical training) (Orthodontics (Clinical training))

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	1
授業方法	実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業の概要

【Language】 Japanese

Carry out the treatment to the end from the start of treatment on the basis of the basic knowledge and skills that you learn in the first year. To update the knowledge and skills for the planning of clinical research.

学生の到達目標

You should achieve following assignments.

1. To get ability of communicate effectively with patients.
2. Analysis of the various information needed for diagnosis, can be summed up.
3. To understand the biological and bio-mechanical fundamentals required for orthodontic treatment.
4. To get ability of analysis for changes in treatment and apply to the treatment step.
5. Analysis and evaluation of the treatment mechanism.

テキスト

出) 著)

参考書

Contemporary orthodontics

出)

著)W. R. Profit

Elements of Orthodontics

出)

著)Takada K.

Common Sense Mechanics

出)

著)Thomas. Mulligan

成績評価方法・基準

評価項目	割合
	100%

Receive the evaluation of the instructor for each step. In addition, students have to present each steps and discuss.

その他

2016年度

Orthodontics (Clinical training) (Orthodontics (Clinical training))

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	1
授業方法	実習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjigake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-3	Enforcement of biomechanics You will learn affecting biomechanics by considering the diagnostic materials through orthodontic patients.	Lectures practice	Kawamoto Takiguchi Gunjigake Kuroishi Morita	Summary of each steps from diagnosis to end of treatment
4-6	Analysis and evaluation of the treatment effect You will learn orthodontic treatment by considering the analysis and evaluation of the treatment effect.	Lectures practice	Kawamoto Takiguchi Gunjigake Kuroishi Morita	Summary of each steps from diagnosis to treatment
7-9	Analysis and evaluation of growth and development You will learn orthodontic treatment by considering the evaluation of growth and development.	Lectures practice	Kawamoto Takiguchi Gunjigake Kuroishi Morita	Summary of each steps from diagnosis to treatment
10-12	Orthodontic materials and movement of the tooth You will learn orthodontic treatment by considering the orthodontic materials and movement of the tooth.	Lectures practice	Kawamoto Takiguchi Gunjigake Kuroishi Morita	Summary of each steps from diagnosis to treatment
13-15	Analysis and evaluation of Orofacial function (chewing, occlusion, breathing) You will learn Orofacial function by considering the evaluation to chewing, occlusion, breathing. Orofacial function in learning.	Lectures practice	Kawamoto Takiguchi Gunjigake Kuroishi Morita	Summary of each steps from diagnosis to treatment

2016年度

Orofacial Function and Orthodontics (Orofacial Function and Orthodontics)

開講年次	1 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業の概要

【Language】 Japanese

You will learn about the organization and analysis of related documents of your research. You have to do oral presentation about your research. You will consider about the method of research.

学生の到達目標

You should achieve following assignments.

1. To get ability of creating the materials for the presentation and utilization.
2. To get ability of analysis and collect information for research.
3. To get ability of consider methodology of research.
4. To get ability of collecting data.

テキスト

出) 著)

参考書

- Orthodontics to dental students
出) Ishiyaku publishers 著) Yamauchi k., Sakuta M.
- Contemporary orthodontics
出) 著) W. R. Profitt
- Elements of Orthodontics
出) 著) Takada K.
- Common Sense Mechanics
出) 著) Thomas. Mulligan
- Biomechanics in Orthodontics, Ram S
出) Nanda 著)
- Science of new bone Bone Biology
出) 著) Suda T., Ozawa E., Takahashi R., Tanaka E., Nakamura H., Mori S.
- Bioscience bone of new bone
出) 著) Yoneda T.
8. Clinical Biomechanics of tooth movement and periodontal ligament dynamism
出) 著) Shimono M., Maeda K., Mizoguchi I.

成績評価方法・基準

評価項目	割合
	100%

Summary background research for their research and literature, submit the study protocol.

2016年度

Orofacial Function and Orthodontics (Orofacial Function and Orthodontics)

開講年次	1 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

その他

2016年度

Orofacial Function and Orthodontics (Orofacial Function and Orthodontics)

開講年次	1 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjigake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-3	Literature search and organize You will learn about research based on literature search and how to organize research.	Lectures seminars	Kawamoto Takiguchi Gunjigake Kuroishi Morita	The use of the Internet, PubMed Understanding of the usage, usage of File maker
4-7	Background of the research and literature summary You will learn about research based on literature search and how to organize research.	Exercises and small group seminars	Kawamoto Takiguchi Gunjigake Kuroishi Morita	Preparation for the consolidation of the literature using literature using PubMed for your collect
8-9	Biology, genetics, molecular cell and orthodontic treatment You will learn the research through orthodontic treatment orthodontic treatment information based on genetics and molecular cell biology.	Exercises and small group seminars	Kawamoto Takiguchi Gunjigake Kuroishi Morita	Preparation for the consolidation of the literature using literature using PubMed for your collect
10-12	Discussion of the research methodology You will learn how to appeal your research topics through the result of research.	Exercises and small group seminars	Kawamoto Takiguchi Gunjigake Kuroishi Morita	PowerPoint Preparation of presentation
13-15	Literature Review (Related to domestic and foreign paper summarization) You will learn how to make discussion of paper through related domestic and international paper.	Exercises and small group seminars	Kawamoto Takiguchi Gunjigake Kuroishi Morita	Summarization of domestic and international related to the theme of your article

2016年度

Orofacial Function and Orthodontics (Orofacial Function and Orthodontics)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業の概要

【Language】 Japanese

Organize the collected documents and information, analyzes the presentation. Consider the method of research. Make presentations and article submission.

学生の到達目標

You should achieve following assignments.

1. To understand the significance of Orofacial function and occlusion with development concept.
2. To understand the biological and bio-mechanical fundamentals required for orthodontic treatment.
3. To get ability of creating the materials for the presentation and utilization.
4. To get ability of analysis and collect information for research.
5. To get ability of considering the methodology of research.
6. To get ability of writing the article and submitting.

テキスト

出) 著)

参考書

Orthodontics to dental students

出) Ishiyaku publishers

著) Yamauchi k., Sakuta M.

Contemporary orthodontics

出)

著) W. R. Proffit

Elements of Orthodontics

出)

著) Takada K.

Common Sense Mechanics

出)

著) Thomas. Mulligan

Biomechanics in Orthodontics, Ram S

出) Nanda

著)

Science of new bone Bone Biology

出)

著) Suda T., Ozawa E., Takahashi R., Tanaka E., Nakamura H., Mori S.

Bioscience bone of new bone

出)

著) Yoneda T.

8. Clinical Biomechanics of tooth movement and periodontal ligament dynamism

出)

著) Shimono M., Maeda K., Mizoguchi I.

成績評価方法・基準

評価項目	割合
	100%

Evaluate the progress of the research in accordance with the research protocol in oral presentations and in writing.
Evaluate the presentation at the meeting.

2016年度

Orofacial Function and Orthodontics (Orofacial Function and Orthodontics)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

その他

2016年度

Orofacial Function and Orthodontics (Orofacial Function and Orthodontics)

開講年次	2 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	講義・演習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-2	Orofacial function and occlusion with development concept. You will learn the history of occlusion by understanding the basics of Orofacial function.	Lecture seminar	Kawamoto	Review handouts
3-4	Developments of Orofacial Function and Orthodontics research You will learn to understand the basic and clinical research related to orthodontic correction of consensus.	Lecture seminar	Kawamoto	Review of 1 grade lectures
5	Histological changes during experimental tooth movement You will learn about reaction of teeth and periodontal tissue by orthodontic tooth movement.	Lecture seminar	Morita	Review of 1 grade lectures
6-7	Mechanics of tooth movement You will learn about tooth movement which include Tipping, Bodily movement, Intrusion, Extrusion, Rotation, Torque.	Lecture seminar	Morita	Typodont syllabus
8	Biology, Molecular cell biology, Genetics and Orthodontic treatment To understand the basic science, to learn the need for orthodontic treatment.	Lecture seminar	Kuroishi	Review of first year lectures
9-11	Background of the research and literature research You need to presentation of the academic background of your research.	Lecture seminar	Gunjigake	Create a Power point on each research, individually
12-14	Presentation of the background of the research and literature research You need to presentation of your research (Research presses etc.).	Lecture seminar	Gunjigake	Create a Power point on each research, individually
15-17	Methodology for the research You will learn about the methodology of your research based on literature search and gathered information.	Lecture seminar	Morita	Create a Power point on each research, individually
18-19	Announcement of research methodology You will learn about presentation of the methodology of your research based on fabrication of research methods, figures and tables using Power point.	Lecture seminar	Kuroishi	Create a Power point on each research, individually
20-22	Data collection analysis presentation The analysis of data collected for research presentation.	Lecture seminar	Kuroishi	Create a Power point on each research, individually
23-25	Meeting presentations and media creation You have to present your research in the form of oral or poster proceedings at academic exhibits (No. 1).	Lecture seminar	Takiguchi	Create a Power point on each research, individually
26-28	Meeting presentations and media creation You have to present your research in the form of oral or poster proceedings at academic exhibits (No. 2).	Lecture seminar	Takiguchi	Create a Power point on each research, individually
29-30	Write an article and submit You will learn about the proper method of writing an article to understand the guidelines of the journal.	Lecture seminar	Kawamoto	Review journals submission guideline

2016年度

Orofacial Function and Orthodontics (Orofacial Function and Orthodontics)

開講年次	2 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平 Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業の概要

【Language】 Japanese
Understand the relationship between occlusion and orthodontics (related to research) through chewing, swallowing and respiratory function. Also consider the cause of the risk which include root resorption and pain associated with treatment.

学生の到達目標

- You should achieve following assignments.
1. To get ability of evaluating the respiratory function.
 2. To clarify and to understand the relationship between activity of masticatory muscle EMG and occlusal sound.
 3. To clarify and to understand the relationship between mouth breathing and bite if training.
 4. To clarify and to understand the regulation of bone metabolism through the trigeminal ganglion.
 5. To clarify and to understand the elucidation of the mechanism of periodontal tissue osteoactivin.
 6. To clarify and understand the friction on the wire between the brackets.

テキスト

出) 著)

参考書

- Orthodontics to dental students
出) Ishiyaku publishers 著) Yamauchi k., Sakuta M.
- Contemporary orthodontics
出) 著) W. R. Profitt
- Biomechanics in Orthodontics, Ram S
出) Nanda 著)
- Science of new bone Bone Biology
出) 著) Suda T., Ozawa E., Takahashi R., Tanaka E., Nakamura H., Mori S.
- Bioscience bone of new bone
出) 著) Yoneda T.
6. Clinical Biomechanics of tooth movement and periodontal ligament dynamism
出) 著) Shimono M., Maeda K., Mizoguchi I.

成績評価方法・基準

評価項目	割合
Evaluation of a research protocol	100%

その他

2016年度

Orofacial Function and Orthodontics (Orofacial Function and Orthodontics)

開講年次	2 grade	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kawamoto T.						
担当教員	川元 龍夫、瀧口 玲子、郡司掛 香織、黒石 加代子、森田 淳平						
	Accredited Specialist of Orofacial Function and Orthodontics : Kawamoto, Takiguchi, Gunjikake, Kuroishi, Morita Supervisor of Orofacial Function and Orthodontics : Kawamoto,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-3	Orofacial function You will learn about the Orofacial function based on growth and development	Lecture	Kawamoto	Review handouts
4	Biological study on the optimal orthodontic force (1) You will learn about the biological study of orthodontic periodontal tissue cells of the bone resorption and mechanism based on optimal orthodontic forces.	Exercises and small group seminars	Gunjigake	One-year review of the next lecture
5	Biological study on the optimal orthodontic force (2) You will learn about the biological study of orthodontic periodontal tissue cells of the bone resorption and mechanism based on optimal orthodontic forces.	Exercises and small group seminars	Kuroishi	One-year review of the next lecture
6-8	Tooth movement and bone modeling You will learn about the orthodontic tooth movement periodontal ligament fibroblast cells, osteoblasts, osteoclasts during bone remodeling.	Exercises and small group seminars	Morita	A perusal of related papers
9-11	Evaluation of masticatory function You will learn about the necessity of the Orthodontic treatment to understand the basics of the masticatory function	Exercises and small group seminars	Takiguchi	A perusal of related papers
12-13	Regulation of bone metabolism through the trigeminal ganglion You will learn about the relationship of the nervous system and bone metabolism	Exercises and small group seminars	Gunjigake	A perusal of related papers
14-15	Mechanism of reaction of bone metabolism in periodontal tissue You will learn about bone metabolism in periodontal tissue and the bone formation mechanism of traction side during orthodontic tooth movement based on the mechanism of reaction and osteoactivin on periodontal ligament fibroblast cells in bone formation factors.	Exercises and small group seminars	Kuroishi	A perusal of related papers

2016年度

Oral and Maxillofacial Radiology (Oral and Maxillofacial Radiology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業の概要

【Language】Japanese

You can study the diagnostic methods using six hundred teaching files in our department and in fact produce the imaging diagnostic reports on the respective case. After then, you can understand the important and essential points on the respective case based on the explanations on the case by the instructors. At the same time, you can study and appropriately comprehend the pathological findings on the respective case through the textbook “ Contemporary Oral and Maxillofacial Pathology ” . In imaging interpretation of the respective case, you should use “ CT, MRI in head and neck ” and “ Handbook of diagnostic imaging in head and neck ” as the textbook.

学生の到達目標

To understand the diagnostic methods for many kinds of lesions in oral and maxillofacial regions through imaging findings on dental X-ray radiographs, panoramic radiographs, CT, MRI, ultrasonography, and 18F-FDG-PET-CT. At the same time, you should comprehend the usefulness of the judgment based on together with the medical interview of patients, anthroposcopy, and the palpation for the lesion in imaging diagnosis of the many kind of lesion in oral and maxillofacial regions

テキスト

出) 著)

参考書

Head and Neck Imaging 3rd edition
出) 著)

Contemporary Oral and Maxillofacial Pathology
出) 著)

Basic radiology
出) 著)

Oral Anatomy
出) 著)

CT, MRI in head and neck
出) 著)

Handbook of diagnostic imaging in head and neck
出) 著)

成績評価方法・基準

評価項目	割合
oral presentations	50%
oral examinations	50%

その他

At every time, we are waiting for your visits about your study-counsel and advices at our departments in the 3rd floor of and the 11th floor of Dental Hospital.

2016年度

Oral and Maxillofacial Radiology (Oral and Maxillofacial Radiology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Diagnosis of 20 teeth-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
3,4	Diagnosis of 20 teeth and jaw-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
5,6	Diagnosis of 20 periodontal lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
7,8	Diagnosis of 20 periodontal and jaw-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
9,10	Diagnosis of 20 oral mucosa-related lesions in 600 cased teaching files I	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
11,12	Diagnosis of 20 oral mucosa-related lesions in 600 cased teaching files II	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
13,14	Diagnosis of 20 parapharyngeal space-related lesions in 600 cased teaching files.	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
15,16	Diagnosis of 20 carotid and perivertebral space-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
17,18	Diagnosis of 20 larynx and pharynx-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
19,20	Diagnosis of 20 sublingual space-related lesions in 600 cased teaching files I	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook

2016年度

Oral and Maxillofacial Radiology (Oral and Maxillofacial Radiology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
21,22	Diagnosis of 20 sublingual space-related lesions in 600 cased teaching files II	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
23,24	Diagnosis of 20 submandibular space-related lesions in 600 cased teaching files I	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
25,26	Diagnosis of 20 submandibular space-related lesions in 600 cased teaching files II	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
27,28	Diagnosis of 20 submandibular and sublingual spaces-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
29,30	Diagnosis of 20 masticator space-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
31,32	Diagnosis of 20 maxillary sinus-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
33,34	Diagnosis of 20 TMJ-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
35,36	Diagnosis of 20 maxilla and mandible-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
37,38	Diagnosis of 20 retropharyngeal space-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
39,40	Diagnosis of 20 parapharyngeal and retropharyngeal spaces-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook

2016年度

Oral and Maxillofacial Radiology (Oral and Maxillofacial Radiology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120 hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
41,42	Diagnosis of 20 pharynx and masticator space-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
43,44	Diagnosis of 20 pharynx-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
45,46	Diagnosis of 20 lymph nodes-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
47,48	Diagnosis of 20 cystic masses in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
49,50	Diagnosis of 20 salivary glands-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
51,52	Diagnosis of 20 thyroid and parathyroid glands-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
53,54	Diagnosis of 20 base of skull and temporal bone-related lesions in 600 cased teaching files	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
55,56	Diagnosis for 20 kinds of diseases in oral and maxillofacial regions I	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
57,58	Diagnosis for 20 kinds of diseases in oral and maxillofacial regions II	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
59,60	Diagnosis for 20 kinds of diseases in oral and maxillofacial regions III	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook

2016年度

Conference of Oral and Maxillofacial Radiology (Conference of Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject or elective (Clinical)	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業の概要

【Language】 Japanese

You can learn and experience the real imaging diagnostic practice through the real patients in our dental hospital at the meeting of conference. In addition, you can look for and read the reference on many kinds of diseases in oral and maxillofacial regions experienced at the conference.

学生の到達目標

To acquire the imaging diagnostic technique for many kinds of lesions in oral and maxillofacial regions through the real patients in our dental hospital. In addition, to precisely understand the respective diseases in oral and maxillofacial regions based on the references on what you experience.

テキスト

Imaging films and medical reports in the patient of our Dental University
(出) (著)

参考書

Head and Neck Imaging 3rd edition
(出) (著)

成績評価方法・基準

評価項目	割合
oral presentations	50%
oral examinations	50%

その他

At every time, we are waiting for your visits about your study-counsel and advices at our departments in the 3rd floor of and the 11th floor of Dental Hospital.

2016年度

Conference of Oral and Maxillofacial Radiology (Conference of Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject or elective (Clinical)	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1 ~ 15	Diagnosis for many kinds of diseases in oral and maxillofacial regions of the real patients in our Dental College through our conference, and read the reference on the respective disease	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook

2016年度

Outline of Oral and Maxillofacial Radiology (Outline of Oral and Maxillofacial Radiology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	60hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業の概要

【Language】 Japanese

Firstly, you can sufficiently review the oral anatomy and the oral pathology. After then, you can learn the basic imaging diagnosis, the basic radiobiology, and the basic radiological physics. As the form of the present subject, you will present the respective content in front of our professors after the respective tutorial study, and the professor in charge of the respective content will precisely explain it

学生の到達目標

To perfectly comprehend the basic oral anatomy and oral pathology. To understand the basic imaging principles, technique of many kinds of imaging modalities, imaging diagnostic interpretation, and the basic radiobiology.

テキスト

出) 著)

参考書

Head and Neck Imaging 3rd edition
出) 著)

Contemporary Oral and Maxillofacial Pathology
出) 著)

Basic radiology
出) 著)

Oral Anatomy
出) 著)

MRI in head and neck
出) 著)

Handbook of diagnostic imaging in head and neck
出) 著)

成績評価方法・基準

評価項目	割合
oral presentations	50%
oral examinations	50%

その他

At every time, we are waiting for your visits about your study-counsel and advices at our departments in the 3rd floor of and the 11th floor of Dental Hospital.

2016年度

Outline of Oral and Maxillofacial Radiology (Outline of Oral and Maxillofacial Radiology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	60hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	History of Radiology, Physics of radiation	Lecture and Practice	Morimoto	Pre- and post-reading of textbook
2	Radiation chemistry	Lecture and Practice	Morimoto	Pre- and post-reading of textbook
3	Basic radiobiology	Lecture and Practice	Morimoto	Pre- and post-reading of textbook
4	Basic radiation measurement methods I	Lecture and Practice	Morimoto	Pre- and post-reading of textbook
5	Basic radiation measurement methods II	Lecture and Practice	Morimoto	Pre- and post-reading of textbook
6	Radiation-related laws and ordinances	Lecture and Practice	Morimoto	Pre- and post-reading of textbook
7	Medical image engineering	Lecture and Practice	Morimoto	Pre- and post-reading of textbook
8	Image storage translation, reproduction, and transfer	Lecture and Practice	Morimoto	Pre- and post-reading of textbook
9	Reviews of basic radiology from 1 to 10.	Lecture and Practice	Morimoto	Pre- and post-reading of textbook
10	Imaging technique for many kinds of diseases in oral and maxillofacial regions I (Mainly Dental and Panoramic radiographs)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
11	Imaging technique for many kinds of diseases in oral and maxillofacial regions I (Mainly X-ray CT scans)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
12	Imaging technique for many kinds of diseases in oral and maxillofacial regions I (Mainly MRI)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
13	Imaging technique for many kinds of diseases in oral and maxillofacial regions I (Mainly Ultrasonography)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
14	Imaging technique for many kinds of diseases in oral and maxillofacial regions I (Mainly Scintigraphy)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
15	Reviews of imaging techniques from 10 to 14.	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
16	Diagnosis for many kinds of diseases in oral and maxillofacial regions I (Mainly maxillary sinus-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook

2016年度

Outline of Oral and Maxillofacial Radiology (Outline of Oral and Maxillofacial Radiology)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	60hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
17	Diagnosis for many kinds of diseases in oral and maxillofacial regions II (Mainly TMJ-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
18	Diagnosis for many kinds of diseases in oral and maxillofacial regions III (Mainly Maxilla and mandible-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
19	Diagnosis for many kinds of diseases in oral and maxillofacial regions IV (Mainly Parapharyngeal, Masticator, and Carotid space-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
20	Diagnosis for many kinds of diseases in oral and maxillofacial regions V (Mainly Retropharyngeal, Perivertebral, Sublingual, and Submandibular space-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
21	Diagnosis for many kinds of diseases in oral and maxillofacial regions VI (Mainly Oropharynx-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
22	Diagnosis for many kinds of diseases in oral and maxillofacial regions VII (Mainly Epipharynx, Hypopharynx, Larynx-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
23	Diagnosis for many kinds of diseases in oral and maxillofacial regions VII (Mainly Lymph nodes-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
24	Diagnosis for many kinds of diseases in oral and maxillofacial regions VIII (Mainly Cystic masses)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
25	Diagnosis for many kinds of diseases in oral and maxillofacial regions IX (Mainly Salivary glands-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
26	Diagnosis for many kinds of diseases in oral and maxillofacial regions IX (Mainly Thyroid and Parathyroid glands-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
27	Diagnosis for many kinds of diseases in oral and maxillofacial regions X (Mainly Base of skull and Temporary bone-related diseases)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
28	Review of diagnosis for many kinds of diseases in oral and maxillofacial regions from 16 to 27	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
29	Interventional Radiology for many kinds of diseases in maxillofacial regions	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
30	Radiotherapy for oral cancers	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook

2016年度

Practice of Oral and Maxillofacial Radiology (Practice of Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	前期	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業の概要

【Language】 Japanese
You can learn the applied imaging diagnosis, the applied radiobiology, and the applied radiological physics based on your knowledge through Basic Dental Radiology.

学生の到達目標

To understand the applied imaging diagnosis, the applied radiobiology, and the applied radiological physics.

テキスト

出) 著)

参考書

Basic Radiology
出) 著)

成績評価方法・基準

評価項目	割合
oral presentations	50%
oral examinations	50%

その他

At every time, we are waiting for your visits about your study-counsel and advices at our departments in the 3rd floor of and the 11th floor of Dental Hospital.

2016年度

Practice of Oral and Maxillofacial Radiology (Practice of Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	前期	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	The examinations of radiation protection supervisor I and II	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
2	History of Radiology, Physics of radiation I	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
3	Physics of radiation II	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
4	Radioisotope	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
5	Basic radiation measurement methods	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
6	Radiation control	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
7	Radiation protection	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
8	Radiation-related laws and ordinances I	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
9	Radiation-related laws and ordinances II	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
10	Radiobiology	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
11	Radiation chemistry I	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
12	Radiation chemistry II	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
13	Review I (Compound questions)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
14	Review II (Compound questions)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook

2016年度

Practice of Oral and Maxillofacial Radiology (Practice of Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	前期	科目	Compulsory subject (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
15	Review III (Compound questions)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post- reading of textbook

2016年度

Practice of Oral and Maxillofacial Radiology (Practice of Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	前期	科目	Compulsory subject or elective (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業の概要

【Language】 Japanese

You can study and examine many kinds of the recent imaging diagnostic investigations based on your knowledge through Basic Dental Radiology.

学生の到達目標

You can basically and specially operate the CT scan and MRI system, and can take photographs of CT images and MRI. In addition, you can easily use the special software on analysis of CT and MRI imaging data in attached workstation. Moreover, you can apply the analytical software " SPSS " on imaging data analysis.

テキスト

出) 著)

参考書

imaging technique-related books

出) 著)

成績評価方法・基準

評価項目	割合
oral presentations	50%
oral examinations	50%

その他

At every time, we are waiting for your visits about your study-counsel and advices at our departments in the 3rd floor of and the 11th floor of Dental Hospital.

2016年度

Practice of Oral and Maxillofacial Radiology (Practice of Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	前期	科目	Compulsory subject or elective (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Imaging techniques and analysis of conventional X-ray CT scans	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
2	Imaging techniques and analysis of CT angiography	Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
3	Data analysis using statistical analytical software SPSS (I)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
4	Imaging techniques and analysis of conventional MRI (I)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
5	Imaging techniques and analysis of conventional MRI (II)	Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
6	Imaging techniques and analysis of conventional MRI (III)	Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
7	Imaging analysis for Dynamic MR sialography (I)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
8	Imaging analysis for Dynamic MR sialography (II)	Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
9	Imaging analysis for Functional MRI (I)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
10	Imaging analysis for Functional MRI (II)	Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
11	Imaging analysis for Functional MRI (III)	Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
12	Imaging analysis for MR angiography (I)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
13	Imaging analysis for MR angiography (II)	Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook
14	Data analysis using statistical analytical software SPSS (II)	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post-reading of textbook

2016年度

Practice of Oral and Maxillofacial Radiology (Practice of Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	前期	科目	Compulsory subject or elective (Clinical)	単位数	2
授業方法	講義・演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
15	Review from 1 to 14	Lecture and Practice	Morimoto, Tanaka, Kito, Oda, Matusumoto	Pre- and post- reading of textbook

2016年度

A reading circle on Oral and Maxillofacial Radiology (A reading circle on Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	前期	科目	Compulsory subject or elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業の概要

【Language】 Japanese

You can learn and study the imaging diagnostic method for many kind of diseases in oral and maxillofacial regions through the representative textbook “ Head and Neck Imaging 3rd edition ” by Som, Curtin et al

学生の到達目標

To understand of imaging findings on many kind of diseases in oral and maxillofacial regions through the representative textbook “ Head and Neck Imaging 3rd edition ” by Som, Curtin et al

テキスト

出) 著)

参考書

Head and Neck Imaging 3rd edition

出)Curtin et al Mosby 1996

著)Som

成績評価方法・基準

評価項目	割合
oral presentations	50%
oral examinations	50%

その他

At every time, we are waiting for your visits about your study-counsel and advices at our departments in the 3rd floor of and the 11th floor of Dental Hospital.

2016年度

A reading circle on Oral and Maxillofacial Radiology (A reading circle on Oral and Maxillofacial Radiology)

開講年次	1 ~ 4 grades	期区分	前期	科目	Compulsory subject or elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto Y						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1 ~ 15	A reading circle of " Head and Neck Imaging "	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook " Head and Neck Imaging 3rd edition "

2016年度

Basic treatment strategy of Oral and Maxillofacial Surgery (Basic treatment strategy of Oral and Maxillofacial Surgery)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直 Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業の概要

【Language】 English and Japanese

To acquire basic treatment skills and strategies of Oral and Maxillofacial Surgery including systemic management for hospitalized patients.

学生の到達目標

- 1.To acquire the basic skills of minor oral surgery
- 2.To acquire the basic knowledge of major oral and maxillofacial surgery
- 3.To acquire the basic skills of pre- and post- operative management for oral surgery
4. To acquire the basic skills of systemic management for hospitalized patients
- 5.To acquire the basic skills of management for medical emergency

テキスト

Contemporary Oral and Maxillofacial Surgery

出) 著) Mosby

参考書

出) 著)

成績評価方法・基準

評価項目	割合
	100%

Total evaluation by case presentations, operation records and oral examinations

その他

2016年度

Basic treatment strategy of Oral and Maxillofacial Surgery (Basic treatment strategy of Oral and Maxillofacial Surgery)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Uncomplicated exodontia	Practice	Fujii	Preparation and review of text books
3,4	Complicated exodontia	Practice	Mitsugi	Preparation and review of text books
5,6	Management of impacted teeth	Practice	Mitsugi	Preparation and review of text books
7,8	Oral examination 1	Case presentation and oral examination	Tominaga	Preparation of case presentation
9,10	Surgical management of cysts of the jaws	Practice	Fujii	Preparation and review of text books
11,12	Periapical surgery	Practice	Takahashi	Preparation and review of text books
13,14	Surgical management of jaw tumors	Practice	Takahashi	Preparation and review of text books
15,16	Preprosthetic surgery	Practice	Iwanaga	Preparation and review of text books
17,18	Prevention of surgical site infection	Practice	Fujii	Preparation and review of text books
19,20	Oral examination 2	Case presentation and oral examination	Sasaguri	Preparation of case presentation
21,22	Preparation for orthognathic surgery	Practice	Mitsugi	Preparation and review of text books
23,24	Surgical management of jaw deformities	Practice	Habu	Preparation and review of text books
25,26	Postsurgical management of orthognathic surgery	Practice	Takahashi	Preparation and review of text books
27,28	Oral examination 3	Case presentation and oral examination	Tominaga	Preparation of case presentation
29,30	Principles of anti-cancer chemotherapy for oral cancer	Practice	Hayakawa	Preparation and review of text books

2016年度

Basic treatment strategy of Oral and Maxillofacial Surgery (Basic treatment strategy of Oral and Maxillofacial Surgery)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

回	学習内容	授業方法	担当教員	事前・事後学習課題
31,32	Principles of irradiation therapy for oral cancer	Practice	Hayakawa	Preparation and review of text books
33,34	Surgical management of oral cancer	Practice	Uehara	Preparation and review of text books
35,36	Surgical reconstruction of oro-facial region	Practice	Uehara	Preparation and review of text books
37,38	Postsurgical management of oral cancer patients	Practice	Iwanaga	Preparation and review of text books
39,40	Principles of terminal care for oral cancer patients	Practice	Iwanaga	Preparation and review of text books
41,42	Oral examination 4	Case presentation and oral examination	Uehara	Preparation of case presentation
43,44	Surgical management of temporomandibular disorders	Practice	Yoshiga	Preparation and review of text books
45,46	Preparation for cleft lip and palate (CLP) surgery	Practice	Habu	Preparation and review of text books
47,48	Postsurgical management of CLP patients	Practice	Habu	Preparation and review of text books
49,50	Surgical management of CLP	Practice	Sasaguri	Preparation and review of text books
51,52	Oral examination 5	Case presentation and oral examination	Sasaguri	Preparation of case presentation
53,54	Intravenous sedation for oral surgery	Practice	Hayakawa	Preparation and review of text books
55,56	General anesthesia for oral surgery	Practice	Yoshiga	Preparation and review of text books
57,58	Management of medical emergenc	Practice	Yoshiga	Preparation and review of text books
59,60	Oral examination 6	Case presentation and oral examination	Tominaga	Preparation of case presentation

2016年度

Basic diagnostic strategy of Oral and Maxillofacial Surgery (Basic diagnostic strategy of Oral and Maxillofacial Surgery)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直 Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業の概要

【Language】 English and Japanese

To acquire basic treatment skills and strategies of Oral and Maxillofacial Surgery including systemic management for hospitalized patients.

学生の到達目標

- 1.To acquire the basic skills of minor oral surgery
- 2.To acquire the basic knowledge of major oral and maxillofacial surgery
- 3.To acquire the basic skills of pre- and post- operative management for oral surgery
4. To acquire the basic skills of systemic management for hospitalized patients
- 5.To acquire the basic skills of management for medical emergency

テキスト

Contemporary Oral and Maxillofacial Surgery
出) Mosby 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
case presentations and oral/paper examinations	100%

その他

2016年度

Basic diagnostic strategy of Oral and Maxillofacial Surgery (Basic diagnostic strategy of Oral and Maxillofacial Surgery)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Medical interview	Practice	Mitsugi	Preparation and review of text books
3,4	Clinical laboratory test 1; Blood test, biochemical test	Practice	Mitsugi	Preparation and review of text books
5,6	Clinical laboratory test 2; Immunochemical blood test	Practice	Mitsugi	Preparation and review of text books
7,8	Image reading of computed tomography	Practice	Takahashi	Preparation and review of text books
9,10	Image reading of magnetic resonance image	Practice	Takahashi	Preparation and review of text books
11,12	Image reading of ultrasound examination	Practice	Takahashi	Preparation and review of text books
13,14	Selection of the optimal modalities for various diseases	Practice	Yoshiga	Preparation and review of text books
15,16	Analysis of the collected data and diagnosis	Practice	Yoshiga	Preparation and review of text books
17,18	Oral examination 1	Case presentation and oral examination	Uehara	Preparation of case presentation
19,20	Pathological characteristics of mucous membrane diseases	Practice	Hayakawa	Preparation and review of text books
21,22	Clinical characteristics of mucous membrane diseases	Practice	Hayakawa	Preparation and review of text books
23,24	Basic strategy for diagnosis of mucous membrane diseases	Practice	Hayakawa	Preparation and review of text books
25,26	Diagnosis of odontogenic infection	Practice	Iwanaga	Preparation and review of text books
27,28	Management of odontogenic infection	Practice	Iwanaga	Preparation and review of text books
29,30	Diagnosis of temporomandibular disorders	Practice	Habu	Preparation and review of text books

2016年度

Basic diagnostic strategy of Oral and Maxillofacial Surgery (Basic diagnostic strategy of Oral and Maxillofacial Surgery)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

回	学習内容	授業方法	担当教員	事前・事後学習課題
31,32	Principles of management of temporomandibular disorders	Practice	Habu	Preparation and review of text books
33,34	Diagnosis of oral psychosomatic disorders	Practice	Sasaguri	Preparation and review of text books
35,36	Principles of management of oral psychosomatic disorders	Practice	Sasaguri	Preparation and review of text books
37,38	Oral examination 2	Case presentation and oral examination	Sasaguri	Preparation of case presentation
39,40	Dental management of the patients with diabetes mellitus	Practice	Yoshiga	Preparation and review of text books
41,42	Dental management of the patients with cardiovascular disorders	Practice	Habu	Preparation and review of text books
43,44	Dental management of the patients under anticoagulant therapy	Practice	Iwanaga	Preparation and review of text books
45,46	Dental management of the patients with liver and kidney diseases	Practice	Fujii	Preparation and review of text books
47,48	Dental management of the patients under bisphosphonate therapy	Practice	Uehara	Preparation and review of text books
49,50	Dental management of medically compromised host	Practice	Uehara	Preparation and review of text books
51,52	Oral examination 3	Case presentation and oral examination	Tominaga	Preparation of case presentation
53,54	Medical and dental ethics	Practice	Fujii	Preparation and review of text books
55,56	Medical record writing based on problem oriented system	Practice	Fujii	Preparation and review of text books
57,58	Oral examination 4	Case presentation and oral examination	Tominaga,	Preparation of case presentation
59,60	Final test of basic diagnosis course	Paper examination	Tominaga,	

2016年度

Oral and axillofacial Surgery 1(Pathology and disease mechanisms) (Oral and axillofacial Surgery 1(Pathology and disease mechanisms))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業の概要

【Language】English and Japanese

To acquire the basic knowledge of various disease models in orofacial region

学生の到達目標

- 1.To acquire the basic skills of histopathological specimens
- 2.To acquire the basic skills of immunohistopathological staining
- 3.To acquire the knowledge of osteonecrosis model induced by bisphosphonate
- 4.To acquire the knowledge of arthritis model of temporomandibular joint
- 5.To acquire the knowledge of transplanted cancer model

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
practice outcome and oral examination	100%

その他

2016年度

Oral and axillofacial Surgery 1(Pathology and disease mechanisms) (Oral and axillofacial Surgery 1(Pathology and disease mechanisms))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Processing of histopathological specimens 1: from tissue fixation to embedding	Lecture and practice	Takahashi	Preparation and review of text book
2	Processing of histopathological specimens 2: decalcification and slicing	Lecture and practice	Takahashi, Fujii	Preparation and review of text book
3	Processing of histopathological specimens 3: H-E staining	Lecture and practice	Fujii	Preparation and review of text book
4	Immunohistopathological staining 1:undecalcified specimens	Lecture and practice	Mitsugi	Preparation and review of text book
5	Immunohistopathological staining 2: decalcified specimens	Lecture and practice	Mitsugi, Hayakawa	Preparation and review of text book
6	Arthritis model of the temporomandibular joint: the impact and the mechanisms	Lecture and practice	Hayakawa	Preparation and review of text book
7	Histopathological findings of the arthritis model	lecture	Habu,	Preparation and review of text book
8	Model of bisphosphonate related osteonecrosis of the jaw : the impact and the mechanisms	lecture	Habu, Iwanaga	Preparation and review of text book
9	BRONJ model on osteoporotic animals: the impact and the mechanisms	lecture	Iwanaga,	Preparation and review of text book
10	Histopathological findings of the BRONJ model	lecture	Uehara,	Preparation and review of text book
11	Immunohistopathological findings of the BRONJ model	lecture	Uehara, Yoshiga	Preparation and review of text book
12	Development of treatment methods using BRONJ models	lecture	Yoshiga,	Preparation and review of text book
13	Transplanted cancer: the impact and the mechanisms	lecture	Sasaguri,	Preparation and review of text book
14	Histopathological findings of the transplanted cancer	lecture	Sasaguri, Tominaga	Preparation and review of text book
15	Oral examination		Tominaga,	Preparation of research presentation

2016年度

Oral and Maxillofacial Surgery 2 (Drug and gene induction) (Oral and Maxillofacial Surgery 2 (Drug and gene induction))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業の概要

【Language】 English and Japanese
To acquire the skills of electroporation and sonoporation

学生の到達目標

- 1.To acquire the basic skills of cell culture
- 2.To acquire the basic skills of microorganisms culture
- 3.To acquire the basic skills of DNA management
4. To acquire the basic skills of electroporation and sonoporation
- 5.To acquire the basic analyzing methods

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
practice outcome and oral examination	100%

その他

2016年度

Oral and Maxillofacial Surgery 2 (Drug and gene induction) (Oral and Maxillofacial Surgery 2 (Drug and gene induction))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (research) / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	cell culture 1: aseptic processing	Lecture and practice	Takahashi	Preparation and review of text book
2,3	Cell culture 2: subcultivation	Lecture and practice	Fujii	Preparation and review of text book
4	Bacterial culture	Lecture and practice	Mitsugi	Preparation and review of text book
5,6	Extraction of DNA	Lecture and practice	Hayakawa	Preparation and review of text book
7	Electroporation	Lecture and practice	Habu	Preparation and review of text book
8	Sonoporation	Lecture and practice	Iwanaga,	Preparation and review of text book
9,10	Analyzing method 1: polymerase chain reaction	Lecture and practice	Uehara	Preparation and review of text book
11,12	Analyzing method 2: western blotting and ELISA	Lecture and practice	Yoshiga	Preparation and review of text book
13,14	Analyzing method 3: flowcytometry	Lecture and practice	Sasaguri,	Preparation and review of text book
15	Oral examination		Tominaga	Preparation of research presentation

2016年度

Oral and Maxillofacial Surgery 3 (Conferences) (Oral and Maxillofacial Surgery 3 (Conferences))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業の概要

【Language】 English and Japanese

Case conference, Research conference, Circle reading of English text book of OMFS, Attending to team approach conference

学生の到達目標

To improve comprehension of the clinical and research background

To improve comprehension of the clinical and research future scope

To be critical reader

テキスト

出) (著)

参考書

出) (著)

成績評価方法・基準

評価項目	割合
presentation	100%

The contents of their presentation are evaluated by the instructors.

その他

2016年度

Oral and Maxillofacial Surgery 3 (Conferences) (Oral and Maxillofacial Surgery 3 (Conferences))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject / Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Tominaga K.						
担当教員	富永 和宏、笹栗 正明、上原 雅隆、土生 学、岩永 賢二郎、吉賀 大午、高橋 理、三次 翔、藤井 誠子、河野 通直						
	Supervisor of Oral and Maxillofacial Surgery : Tominaga, Uehara, Specialist in Oral and Maxillofacial Surgery : Tominaga, Sasaguri, Uehara, Habu, Iwanaga, Yoshiga,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Back ground and future scope of individual researches and clinical cases	Conference presentation	Tominaga Sasaguri Uehara Habu Iwanaga Yoshig Takahashi Mitsugi Fujii Hayakawa	Research of related articles

2016年度

Oral Medicine (Basic Course) (Oral Medicine (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject(clinical)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka I.						
担当教員	吉岡 泉、宮本 郁也、國領 真也 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo						

授業の概要

The purpose of oral medicine is not only to examine the oral cavity of a dental patient, but also diagnose and treat oral disease in consideration of the patient ' s systemic backgrounds. Oral Medicine is the discipline of dentistry with the internal medical approach. We will study about the basic way of thinking of oral medicine.

学生の到達目標

- 1 . You can diagnose and treat oral disease in consideration of systemic disease.
- 2 . You can understand the effects that oral disease can affect to systemic status and systemic disease can affect to oral disease, when you treat the patient of oral disease with systemic disease.
- 3 . You can understand the medical relationship and team medicine between medical doctors, co-staff and other related people.

テキスト

Oral Surgery (Japanese)
出)Ishiyaku Publishers, Inc

著)Kanemitsu Shirasuna, Kogo
Mikihiko edt

参考書

出) 著)

成績評価方法・基準

評価項目	割合
report after each lecture (1*4points) 1st-15th	60%
portfolios (1*4points) 1st-10th	40%

その他

Choose an article or suggestive paper that you would like to introduce and discuss with the members.

2016年度

Oral Medicine (Basic Course) (Oral Medicine (Basic Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject(clinical)	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka I.						
担当教員	吉岡 泉、宮本 郁也、國領 真也 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	General statements of Oral Medicine, diagnoses of Oral Medicine You will study the diagnoses and treatments of oral disease with internal medical approach. And you can study the relationship between oral and systemic disease.	Lecture	Yoshioka	Pre reading of literature and textbook
2	Treatment and diagnoses of disease of oral mucosa. You will study about the structure of Oral mucosa. And you can study about the characteristics, symptom, diagnoses and treatments of disease of oral mucosa.	Lecture	Yoshioka	Pre-post reading of literature and textbook
3	Treatment and diagnoses of temporomandibular disease. You will study the function and structure of temporomandibular joint, classification of temporomandibular disease, and differential diagnoses.	Lecture	Yoshioka	Pre-post reading of literature and textbook
4	Treatment and diagnoses of Dry Mouth You will study the classification, symptom, differential diagnosis and treatment of Dry Mouth.	Lecture	Yoshioka	Pre-post reading of literature and textbook
5	Treatment and diagnoses of oral psychosomatic disease. You will study the classification, symptom, differential diagnosis and treatment of oral psychosomatic disease.	Lecture	Yoshioka	Pre-post reading of literature and textbook
6	Treatments of Oro-facial pain and taste disorder. You will study the diagnoses and treatment plan of Oro-facial pain and taste disorder.	Lecture	Miyamoto	Pre-post reading of literature and textbook
7	General principles of antibiotic therapy. You will study the classification, characteristics and usage of antibiotic therapy.	Lecture	Miyamoto	Pre-post reading of literature and textbook
8	Practical managements of arthrocentesis of TMJ. You will study about arthrocentesis of TMJ	Lecture	Miyamoto	Pre-post reading of literature and textbook
9	Perioperative oral management on patients of cancer. You will study about the significance of perioperative oral management on patients of cancer and practical techniques of management.	Lecture	Miyamoto	Pre-post reading of literature and textbook
10	Non-surgical treatment of Oral cancer. You will study about non-surgical treatment of oral malignancy such as chemotherapy, immunotherapy and so on.	Lecture	Miyamoto	Pre-post reading of literature and textbook
11	Oral treatment of cardiovascular disease and respiratory patients. You will study about the important points about oral treatment of cardiovascular and respiratory disease patients.	Lecture	Kokuryo	Pre-post reading of literature and textbook
12	Oral treatment of metabolism, endocrinology and gynecological diseases patients. You will study about the important points about oral treatment of metabolism, endocrinology and gynecological diseases patients.	Lecture	Kokuryo	Pre-post reading of literature and textbook
13	Oral treatment of digestive, urological diseases patients. You will study about the important points about the oral treatment of digestive, urological diseases patients.	Lecture	Kokuryo	Pre-post reading of literature and textbook
14	Oral treatment of blood, autoimmune disease patients. You will study about the important points about the oral treatment of blood, autoimmune disease patients.	Lecture	Kokuryo	Pre-post reading of literature and textbook
15	Medical cooperation/ Summary You will study about clinic, hospital collaboration, medical collaboration, medical-dental collaboration multidisciplinary collaboration and consultation for the purpose of team medicine.	Lecture	Kokuryo	Post reading of literature and textbook

2016年度

Oral Medicine (Advanced Course) (Oral Medicine (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka K.						
担当教員	吉岡 泉、宮本 郁也、國領 真也、坂口 修、鶴島 弘基、大澤 賢次、田中 純平 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo						

授業の概要

【Language】 English and Japanese

In this course, you will practice basic skills about oral mucosal disease, temporomandibular disorders cancer, orofacial pain and dry mouth. Under the management by Supervisors, you will carry out simulation training and clinical practice, and acquire fundamental knowledge as well as skills for a specialist in the area of oral medicine.

学生の到達目標

To acquire fundamental knowledge and skills about oral mucosal disease, temporomandibular disorders and dry mouth.

You should achieve following assignments;

- Construction of good relationship with patients and stuffs
- Collection of clinical cases
- Acquisition of skills about oral mucosal disease, temporomandibular disorders cancer, orofacial pain and dry mouth.

テキスト

Oral Surgery (Japanese)

出)Ishiyaku Publishers, Inc

著)Kanemitsu Shirasuna, Kogo
Mikihiko edt

参考書

出)

著)

成績評価方法・基準

評価項目	割合
report after each lecture (1*4points) 1st-15th	60%
portfolios (1*4points) 1st-10th	40%

その他

Choose an article or suggestive paper that you would like to introduce and discuss with the members.

2016年度

Oral Medicine (Advanced Course) (Oral Medicine (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka K.						
担当教員	吉岡 泉、宮本 郁也、國領 真也、坂口 修、鶴島 弘基、大澤 賢次、田中 純平 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Oral mucosal diseases1 You will learn clinical diagnostic reasoning.(1)	Practice	Tanaka	Pre reading of literature and textbook
3,4	Oral mucosal diseases2 You will learn clinical diagnostic reasoning.(2)	Practice	Tanaka	Pre reading of literature and textbook
5,6	Oral mucosal diseases3 You will learn clinical diagnostic reasoning.(3)	Practice	Tanaka	Pre reading of literature and textbook
7,8	Oral mucosal diseases4 You will learn treatment for oral mucosal disease.	Practice	Tanaka	Pre reading of literature and textbook
9,10	Temporomandibular disorder1 You will learn clinical diagnostic reasoning. (1)	Practice	Tanaka	Pre reading of literature and textbook
11,12	Temporomandibular disorder2 You will learn clinical diagnostic reasoning.(2)	Practice	Sakaguchi	Pre reading of literature and textbook
13,14	Temporomandibular disorder3 You will learn clinical diagnostic reasoning.(3)	Practice	Sakaguchi	Pre reading of literature and textbook
15,16	Temporomandibular disorder4 You will learn treatment for TMD.(physical therapy)	Practice	Sakaguchi	Pre reading of literature and textbook
17,18	Temporomandibular disorder5 You will learn treatment for TMD.(splint therapy)	Practice	Sakaguchi	Pre reading of literature and textbook
19,20	Temporomandibular disorder6 You will learn treatment for TMD.(manipulation)	Practice	Sakaguchi	Pre reading of literature and textbook
21,22	Temporomandibular disorder7 You will learn treatment for TMD.(arthrocentesis)	Practice	Kokuryo	Pre reading of literature and textbook
23,24	Temporomandibular disorder8 You will learn treatment for TMD.(surgical operation)	Practice	Kokuryo	Pre reading of literature and textbook
25,26	Dislocation of the temporomandibular joint1 You will learn conservative treatment.	Practice	Kokuryo	Pre reading of literature and textbook
27,28	Dislocation of the temporomandibular joint2 You will learn surgical operation.	Practice	Kokuryo	Pre reading of literature and textbook
29,30	Tumor of the temporomandibular joint You will learn surgical operation.	Practice	Kokuryo	Pre reading of literature and textbook
31,32	Dry mouse1 You will learn clinical diagnostic reasoning.	Practice	Tsurushim a	Pre reading of literature and textbook

2016年度

Oral Medicine (Advanced Course) (Oral Medicine (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka K.						
担当教員	吉岡 泉、宮本 郁也、國領 真也、坂口 修、鶴島 弘基、大澤 賢次、田中 純平 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
33,34	Dry mouse2 You will learn clinical diagnostic reasoning.	Practice	Tsurushim a	Pre reading of literature and textbook
35,36	Dry mouse3 You will learn clinical diagnostic reasoning.	Practice	Tsurushim a	Pre reading of literature and textbook
37,38	Dry mouse4 You will learn treatment for dry mouth.	Practice	Tsurushim a	Pre reading of literature and textbook
39,40	Oral psychosomatic disease 1 You will learn clinical diagnostic reasoning.	Practice	Tsurushim a	Pre reading of literature and textbook
41,42	Oral psychosomatic disease 2 You will learn clinical diagnostic reasoning.	Practice	Osawa	Pre reading of literature and textbook
43,44	Oral psychosomatic disease 3 You will learn clinical diagnostic reasoning.	Practice	Osawa	Pre reading of literature and textbook
45,46	Oral psychosomatic disease 4 You will learn treatment for oral psychosomatic disease.	Practice	Osawa	Pre reading of literature and textbook
47,48	Orofacial pain1 You will learn clinical diagnostic reasoning.	Practice	Osawa	Pre reading of literature and textbook
49,50	Orofacial pain2 You will learn clinical diagnostic reasoning.	Practice	Osawa	Pre reading of literature and textbook
51,52	Orofacial pain3 You will learn clinical diagnostic reasoning.	Practice	Miyamoto	Pre reading of literature and textbook
53,54	Orofacial pain4 You will learn treatment for orofacial pain.	Practice	Miyamoto	Pre reading of literature and textbook
55,56	Chemotherapy You will learn chemotherapy for oral cancer.	Practice	Miyamoto	Pre reading of literature and textbook
57,58	Radiation therapy You will learn radiation therapy for oral cancer.	Practice	Miyamoto	Pre reading of literature and textbook
59,60	Chemoradiation therapy You will learn chemoradiation therapy for oral cancer	Practice	Miyamoto	Pre reading of literature and textbook

2016年度

Oral Medicine (Advanced Course) (Oral Medicine (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical) /Electiv	単位数	2
授業方法	実習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka I.						
担当教員	吉岡 泉、鶴島 弘基、大澤 賢次 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo						

授業の概要

【Language】 English and Japanese

In this course, you will practice basic skills about oral treatment of the patients with systemic disease. Under the management by Supervisors, you will carry out simulation training and clinical practice, and acquire fundamental knowledge as well as skills for a specialist in the area of oral medicine.

学生の到達目標

To acquire fundamental knowledge and skills about oral treatment of the patients with systemic disease. .

You should achieve following assignments;

- Construction of good relationship with patients and stuffs
- Collection of clinical cases
- Acquisition of skills about oral treatment of the patients with systemic disease.

テキスト

出) 著)

参考書

Oral and maxillofacial surgery
出)Ishiyaku Published

著)Shirasuna K., kogou M.

成績評価方法・基準

評価項目	割合
case presentation	60%
report	40%

その他

2016年度

Oral Medicine (Advanced Course) (Oral Medicine (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical) /Electiv	単位数	2
授業方法	実習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka I.						
担当教員	吉岡 泉、鶴島 弘基、大澤 賢次 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Hypertension You will learn oral treatment for patients with hypertension.	Practice	Yoshioka	Pre reading of literature and textbook
3,4	Heart disease You will learn oral treatment for patients with heart disease.	Practice	Yoshioka	Pre reading of literature and textbook
5,6	Respiratory disease You will learn oral treatment for patients with respiratory disease.	Practice	Yoshioka	Pre reading of literature and textbook
7,8	Diabetes mellitus You will learn oral treatment for patients with diabetes mellitus.	Practice	Yoshioka	Pre reading of literature and textbook
9,10	Gynecological disease - pregnant women You will learn oral treatment for patients with gynecological disease and pregnant women.	Practice	Yoshioka	Pre reading of literature and textbook
11,12	Hemodyscrasia You will learn oral treatment for patients with hemodyscrasia.	Practice	Tsurushim a	Pre reading of literature and textbook
13,14	Autoimmune disease You will learn oral treatment for patients with autoimmune disease.	Practice	Tsurushim a	Pre reading of literature and textbook
15,16	Hepatic disease You will learn oral treatment for patients with hepatic disease.	Practice	Tsurushim a	Pre reading of literature and textbook
17,18	Renal disease You will learn oral treatment for patients with renal disease.	Practice	Tsurushim a	Pre reading of literature and textbook
19,20	Orthopedic disorder You will learn oral treatment for patients with orthopedic disorder.	Practice	Tsurushim a	Pre reading of literature and textbook
21,22	Neurological disease You will learn oral treatment for patients with neurological disease.	Practice	Osawa	Pre reading of literature and textbook
23,24	Neurosurgical disease You will learn oral treatment for patients with neurosurgical disease.	Practice	Osawa	Pre reading of literature and textbook
25,26	Otorhinolaryngological disease You will learn oral treatment for patients with otorhinolaryngological disease.	Practice	Osawa	Pre reading of literature and textbook
27,28	Infection You will learn oral treatment for patients with infection.	Practice	Osawa	Pre reading of literature and textbook
29,30	Dermatological disease You will learn oral treatment for patients with dermatological disease.	Practice	Osawa	Pre reading of literature and textbook

2016年度

Oral Medicine (Advanced Course) (Oral Medicine (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory Subject (Clinical)	単位数	2
授業方法	実習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Osawa K.						
担当教員	大澤 賢次、田中 純平、坂口 修						
	Certifying physician of Oral and Maxillofacial Surgery : Tanaka, Sakaguchi,						

授業の概要

【Language】English and Japanese

・ In this course, you will learn the medical cooperation through this workshop. Under the management by Supervisors, you will carry out simulation training and clinical practice, and acquire fundamental knowledge as well as skills about medical collaboration.

学生の到達目標

To acquire fundamental knowledge and skills about oral mucosal disease, temporomandibular disorders and dry mouth.

You should achieve following assignments;

- ・ Construction of good relationship with patients and stuffs
- ・ Collection of clinical cases
- ・ Acquisition of skills about medical collaboration

テキスト

Oral Surgery (Japanese)

出) Ishiyaku Publishers, Inc

著) Kanemitsu Shirasuna, Kogo
Mikihiko edt

参考書

出)

著)

成績評価方法・基準

評価項目	割合
Presentation	60%
Report	40%

その他

2016年度

Oral Medicine (Advanced Course) (Oral Medicine (Advanced Course))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory Subject (Clinical)	単位数	2
授業方法	実習	時間数	60	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Osawa K.						
担当教員	大澤 賢次、田中 純平、坂口 修						
	Certifying physician of Oral and Maxillofacial Surgery : Tanaka, Sakaguchi,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Hospital and hospital cooperation You will learn the hospital and hospital cooperation.	Practice	Osawa	Pre reading of literature and textbook
3,4	Hospital and clinic cooperation You will learn the hospital and clinic cooperation.	Practice	Osawa	Pre reading of literature and textbook
5,6	Medical Consultation You will learn about the consultation.	Practice	Osawa	Pre reading of literature and textbook
7,8	Medical and dental cooperation You will learn the medical and dental cooperation.	Practice	Osawa	Pre reading of literature and textbook
9,10	Multidisciplinary collaboration You will learn the collaboration with doctors.	Practice	Osawa	Pre reading of literature and textbook
11,12	Multidisciplinary collaboration You will learn the collaboration with nurses.	Practice	Tanaka	Pre reading of literature and textbook
13,14	Multidisciplinary collaboration You will learn the collaboration with registered dietitians.	Practice	Tanaka	Pre reading of literature and textbook
15,16	Multidisciplinary collaboration You will learn about the collaboration with dental hygienists.	Practice	Tanaka	Pre reading of literature and textbook
17,18	Multidisciplinary collaboration You will learn about the collaboration with medical social workers.	Practice	Tanaka	Pre reading of literature and textbook
19,20	Multidisciplinary collaboration You will learn the collaboration with personal care workers.	Practice	Tanaka	Pre reading of literature and textbook
21,22	Multidisciplinary collaboration You will learn the collaboration with medical assistants.	Practice	Sakaguchi	Pre reading of literature and textbook
23,24	Perioperative oral management of cancer patients 1 You will learn the oral management of the patient with cancer undergoing chemotherapy.	Practice	Sakaguchi	Pre reading of literature and textbook
25,26	Perioperative oral management of cancer patients 2 You will learn the oral management of patient with cancer undergoing radiation therapy.	Practice	Sakaguchi	Pre reading of literature and textbook
27,28	Oral management of patient taking bisphosphonates You will learn the oral management of patient taking bisphosphonates.	Practice	Sakaguchi	Pre reading of literature and textbook
29,30	The treatment of Bisphosphonate Related osteonecrosis of the jaw You will learn treatment of Bisphosphonate Related Osteonecrosis of the jaw.	Practice	Sakaguchi	Pre reading of literature and textbook

2016年度

Oral Medicine (Jaw Deformity) (Oral Medicine (Jaw Deformity))

開講年次	1 ~ 3 grades	期区分	通年	科目	Main (research) / Sub	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka I.						
担当教員	吉岡 泉、坂口 修、鶴島 弘基 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Certifying physician of Oral and Maxillofacial Surgery : Sakaguchi, Tsurushima,						

授業の概要

【Language】 English and Japanese

In this course, you will get knowledge and practice basic skills about the research of jaw deformity.

学生の到達目標

You should understand following subjects;

1. The methods of analysis and evaluation about the form of jaw deformity.
2. The methods of analysis and evaluation about the function of jaw deformity.

テキスト

Oral and Maxillofacial Surgery

出) Ishiyaku Publishers, Inc.

著)

参考書

出)

著)

成績評価方法・基準

評価項目	割合
reports after the lectures (4x15)	60%
assignments (4x10)	40%

その他

2016年度

Oral Medicine (Jaw Deformity) (Oral Medicine (Jaw Deformity))

開講年次	1 ~ 3 grades	期区分	通年	科目	Main (research) / Sub	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka I.						
担当教員	吉岡 泉、坂口 修、鶴島 弘基 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Certifying physician of Oral and Maxillofacial Surgery : Sakaguchi, Tsurushima,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Survey of jaw deformities You will learn about the trends of jaw deformities.	Lectures and Seminars	Yoshioka	Pre reading of literature and textbook
2	Inspection of jaw de- -formities You will learn about the trends of jaw deformities.	Lectures and Seminars	Yoshioka	Pre reading of literature and textbook
3	Analysis of jaw defomities You will learn about the analysis of jaw deformities.	Lectures and Seminars	Yoshioka	Pre reading of literature and textbook
4	Preoperative assessment of jaw deformities. You will learn about the Pre- -operative assessment.	Lectures and Seminars	Yoshioka	Pre reading of literature and textbook
5	Preoperative association of jaw deformities. You will learn about the pre- -operative association.	Lectures and Seminars	Yoshioka	Pre reading of literature and textbook
6	Medical cooperation of jaw deformities. You will learn about the medical cooperation.	Lectures and Seminars	Sakaguchi	Pre reading of literature and textbook
7	Orthognatic surgery You will learn about the orthognatic surgery.	Lectures and Seminars	Sakaguchi	Pre reading of literature and textbook
8	Post-operative assessment of jaw deformities. You will earn about the post-operative assessment.	Lectures and Seminars	Sakaguchi	Pre reading of literature and textbook
9	Evaluation of the masti- -catory function you will learn about the Evaluation of the masticatory function.	Lectures and Seminars	Sakaguchi	Pre reading of literature and textbook
10	Psychological evaluation of patients with jaw defor- -mities. You will learn about the psychological evaluation of patients with jaw deform- -ities.	Lectures and Seminars	Sakaguchi	Pre reading of literature and textbook
11	Respiratory function of patients with jaw defor- -mities. you will learn about the relationship between respi- -ratory function and jaw deformities.	Lectures and Seminars	Tsurushima	Pre reading of literature and textbook
12	Articulation function of patients with jaw defor- -mities. You will learn about the relationship between arti- -culation function and jaw deformities.	Lectures and Seminars	Tsurushima	Pre reading of literature and textbook
13	Digestive function of patients with jaw defor- -mities. You will learn about the relationship between digestive function and jaw deformities.	Lectures and Seminars	Tsurushima	Pre reading of literature and textbook
14	Three-dimensional evalu- -ation of jaw deformities. You will learn about three- -dimensional evaluation of jaw deformities.	Lectures and Seminars	Tsurushima	Pre reading of literature and textbook
15	Genetic features of patients with jaw deformities. You will learn about genetic features of patients with jaw deformities.	Lectures and Seminars	Tsurushima	Pre reading of literature and textbook

2016年度

Oral Medicine (Oral Medicine)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject(research) minor	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Miyamoto I.						
担当教員	宮本 郁也、國領 真也、田中 純平 Advisor and Specialist of Oral and Maxillofacial Surgery : Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo, Tanaka,						

授業の概要

【Language】English and Japanese

In this course, you will learn fundamental knowledge as well as skills for research in the area of oral surgery. Under the management by Supervisors, you will carry out simulation training and clinical practice.

学生の到達目標

You should achieve acquisition of skills for research in the area of oral surgery.

テキスト

Oral Surgery (Japanese)

出) Ishiyaku Publishers, Inc

著) Kanemitsu Shirasuna, Kogo
Mikihiko edt

参考書

出)

著)

成績評価方法・基準

評価項目	割合
report after each lecture (1st ~ 15th, 1x4 points)	60%
submission of exercises (1st - 10th, 1x4 points)	40%

その他

2016年度

Oral Medicine (Oral Medicine)

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject(research) minor	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Miyamoto I.						
担当教員	宮本 郁也、國領 真也、田中 純平 Advisor and Specialist of Oral and Maxillofacial Surgery : Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo, Tanaka,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Bone augmentation research You will learn the trend of bone augmentation research.	Lecture, Practice	Miyamoto	Pre reading of literature and textbook
2	Distraction osteogenesis of animal jaw You will learn the distraction osteogenesis of animal jaw.	Lecture, Practice	Miyamoto	Pre reading of literature and textbook
3	The animal models of sinus lift You will learn the animal models of sinus lift.	Lecture, Practice	Miyamoto	Pre reading of literature and textbook
4	The animal models of graft You will learn the animal models of bone graft.	Lecture, Practice	Miyamoto	Pre reading of literature and textbook
5	Manufacturing method of hard tissue specimen You will learn the manufacturing method of hard tissue specimen.	Lecture, Practice	Miyamoto	Pre reading of literature and textbook
6	Oral mucosal diseases research You will learn oral mucosal diseases research.	Lecture, Practice	Kokuryo	Pre reading of literature and textbook
7	The sampling method of oral mucosal diseases You will learn the sampling method of oral mucosal diseases.	Lecture, Practice	Kokuryo	Pre reading of literature and textbook
8	The immunologic mechanism of oral mucosal diseases You will learn immunologic mechanism of oral mucosal diseases.	Lecture, Practice	Kokuryo	Pre reading of literature and textbook
9	The xerostomia model animal You will learn preparing animal models of xerostomia.	Lecture, Practice	Kokuryo	Pre reading of literature and textbook
10	The metal allergy model animal You will learn preparing animal models of metal allergy.	Lecture, Practice	Kokuryo	Pre reading of literature and textbook
11	Temporomandibular joint disorders research You will learn the trend of temporomandibular joint disorders research.	Lecture, Practice	Tanaka	Pre reading of literature and textbook
12	Temporomandibular arthritis model animal You will learn preparing the animal models of temporomandibular arthritis.	Lecture, Practice	Tanaka	Pre reading of literature and textbook
13	The sampling method of temporomandibular joint synovial fluids You will learn the sampling method of temporomandibular joint synovial fluids.	Lecture, Practice	Tanaka	Pre reading of literature and textbook
14	The analysis method of temporomandibular joint synovial fluids You will learn the analysis method of temporomandibular joint synovial fluids.	Lecture, Practice	Tanaka	Pre reading of literature and textbook
15	The measurement procedure of temporomandibular joint pain threshold You will learn the measurement procedure of temporomandibular joint pain threshold.	Lecture, Practice	Tanaka	Pre reading of literature and textbook

2016年度

Oral Medicine (Oral Medicine)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (research), minor subject	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka I.						
担当教員	吉岡 泉、宮本 郁也、國領 真也、坂口 修、鶴島 弘基、大澤 賢次、田中 純平 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo, Sakaguchi, Tsurushima, Tanaka, Ohtani,						

授業の概要

You can increase scientific information and understand recent research trend, related to oral medicine ,by reading and presenting English-language journals in turns.

学生の到達目標

1. To develop reading skill of English-language journals
2. To develop presentation skill
3. To develop an ability to criticize the journals
4. To understand the background on own research field.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Selection of article	60%
Ability of the presentation	40%

その他

You have to choose the article, to prepare the materials necessary for your presentation.

2016年度

Oral Medicine (Oral Medicine)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (research), minor subject	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Yoshioka I.						
担当教員	吉岡 泉、宮本 郁也、國領 真也、坂口 修、鶴島 弘基、大澤 賢次、田中 純平 Advisor and Specialist of Oral and Maxillofacial Surgery : Yoshioka, Miyamoto, Certifying physician of Oral and Maxillofacial Surgery : Kokuryo, Sakaguchi, Tsurushima, Tanaka, Ohtani,						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	English-language journals To learn the background and future prospect of own research work, current topics and so on	Reading and presenting English-language journals in turns	Yoshioka Miyamoto Kokuryo Sakaguchi Tsurushim a Osawa Tanaka Ohtani	Pre- and post-reading of journals

2016年度

Oral Care and Rehabilitation (Basic) (Oral Care and Rehabilitation (Basic))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	講義・実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之、久保田 潤平						

授業の概要

【Language】English and Japanese

You will carry out examinations for dysphagia, and learn procedures and effects of rehabilitation and diagnosis for rehabilitation prescription including precise functional exercise.

学生の到達目標

You should achieve following assignments;

- 1.Understanding the dysphagia type
- 2.Practicing rehabilitation for dysphagia
- 3.Choice of modified diet for dysphagic persons
- 4.Correspondence for functional prosthesis dental treatment for dysphagia

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
report including mini test	10%
examination and unit certification test	90%

その他

CertifiedDentists:Kakinoki,Fujii,Tada,Kimura,Kubota
Supervisor of DisabilityOralHealth:Kakinoki,Fujii
CertifyingPhysician:Kakinoki,Fujii,Tada,Kimura,Kubota
AccreditedSpecialist:Kakinoki,Fujii,Tada
Supervisor of Gerodontology:Kakinoki,Fujii
CertifiedDentists of DysphagiaRehabilitation:Kakinoki,Fujii
CertifiedDentists of Complementary and AlternativeMedicine:Kakinoki,Tada

2016年度

Oral Care and Rehabilitation (Basic) (Oral Care and Rehabilitation (Basic))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	講義・実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之、久保田 潤平						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Normal development mechanism of eating and swallowing (developmental disability, elderly)	Lecture	Kakinoki	(Review) Report
3,4	Oral care for dysphagic persons	Practice	Kakinoki	(Review) Report
5,6	Functional assessment of eating and swallowing; Inquiry , Interviews of medical history	Practice	Fujii	(Preparation) RSST, MWST, coughing test, FT
7,8	Functional assessment of eating and swallowing; Screening	Practice	Fujii	(Preparation) RSST, MWST, coughing test, FT
9,10	Examination1		Kakinoki	
11,12	Breathing and Coughing exercise	Practice	Fujii	(Preparation) Breathing and Coughing exercise
13,14	Open and close mouth exercises; Exercise for trismus Exercise for closed failure	Practice	Fujii	(Preparation) Open and close mouth exercises
15,16	Exercise for perioral muscle and tongue muscle 1 ; Lip closure exercise, the method of vangede	Practice	Kubota	(Preparation) Lip closure exercise
17,18	Exercise for perioral muscle and tongue muscle 2 ; Buccal exercise, the method of vangede, tongue exercise	Practice	Kubota	(Preparation) Buccal exercise
19,20	Exercise for perioral muscle and tongue muscle 3 ; Soft palate elevation exercise	Practice	Kubota	(Preparation) Soft palate elevation exercise
21,22	Exercise for perioral muscle and tongue muscle 4 ; Tongue exercise, elevation exercise of tongue dorsum and apex of tongue	Practice	Fujii	(Preparation) Tongue exercise, elevation exercise of tongue dorsum and apex of tongue
23,24	Chewing and infeed exercise	Practice	Fujii	(Preparation) Chewing and infeed exercise
25,26	Exercises of swallowing; Thermal tactile stimulation	Practice	Fujii	(Preparation) Thermal tactile stimulation

2016年度

Oral Care and Rehabilitation (Basic) (Oral Care and Rehabilitation (Basic))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	講義・実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之、久保田 潤平						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
27,28	Exercises of swallowing; Tongue recession exercise, Tongue holding maneuver	Practice	Fujii	(Preparation) Tongue recession exercise, Tongue holding maneuver
29,30	Exercises of swallowing; Shaker exercises	Practice	Fujii	(Preparation) Shaker exercises
31,32	Neck relaxation; Neck range of motion expanding exercise, stretch of larynx muscles	Practice	Kakinoki	(Preparation) Neck range of motion expanding exercise
33,34	Acquisition of the swallowing procedure; Mendelson maneuver Use of Biofeedback	Practice	Kakinoki	(Preparation) Mendelson maneuver
35,36	Compensatory swallowing neck rotation swallowing, multiple swallowing, alternate swallowing	Practice	Kimura	(Preparation) neck rotation swallowing, multiple swallowing, alternate swallowing
37,38	Examination2		Kakinoki	
39,40	Operation of naso pharyngo laryngoscope	Practice	Kimura	(Review) Report
41,42	Exploration of dysphagia by naso pharyngo laryngoscope	Practice	Kimura	(Review) Report
43,44	Procedure of videofluoroscopic examination of swallowing	Lecture	Fujii	(Review) Report
45,46	Modification of imitation foods for videofluoroscopic examination of swallowing	Practice	Fujii	(Review) Report
47,48	Manufacture of palatal augmentation prosthesis (PAP)1; Impression , manufacture of wire clasp	Practice	Kimura	(Preparation) wire clasp
49,50	Manufacture of PAP2; Adjustment of tongue contact surface form	Practice	Kimura	(Review) Report
51,52	Adjustment of PAP; Set and adjustment	Practice	Kimura	(Preparation) Adjustment of PAP
53,54	Manufacture of palatal Lift prosthesis (PLP)1 ; Impression , manufacture of wire clasp	Practice	Tada	(Preparation) Impression for manufacture of PLP
55,56	Manufacture of PLP 2 ;	Practice	Tada	Report
57,58	Adjustment of PLP; Set and adjustment	Practice	Tada	(Preparation) Adjustment of PLP

2016年度

Oral Care and Rehabilitation (Basic) (Oral Care and Rehabilitation (Basic))

開講年次	1 ~ 2 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	講義・実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之、久保田 潤平						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
59,60	Review, Examination3, unit certification test	-	-	Kakinoki

2016年度

Oral Care and Rehabilitation (Advanced) (Oral Care and Rehabilitation (Advanced))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之						

授業の概要

【Language】English and Japanese

You will learn dental treatment, oral care, and guidance in consideration of systemic disorders of elderly.

You will learn to repair and adjust denture in consideration of dysphagic persons.

You will learn how to examination and guidance with understanding Chinese medicine.

学生の到達目標

You should achieve following assignments:

- 1.Evaluation of systemic condition of elderly, evaluation of intraoral and perioral condition
- 2.Oral care and oral functional exercise in consideration of systemic disorders of elderly
- 3.Dental treatment with Chinese medicine in consideration of systemic disorders of elderly
- 4.Health guidance by basic skill of tongue diagnosis
- 5.Homebound treatment for bedridden elderly
6. To repair and adjust denture in consideration of dysphagic persons.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
report including test	10%
examination and unit certification test	90%

その他

CertifiedDentists:Kakinoki,Fujii,Tada,Kimura,Kubota

Supervisor of DisabilityOralHealth:Kakinoki,Fujii

CertifyingPhysician:Kakinoki,Fujii,Tada,Kimura,Kubota

AccreditedSpecialist:Kakinoki,Fujii,Tada

Supervisor of Gerodontology:Kakinoki,Fujii

CertifiedDentists of DysphagiaRehabilitation:Kakinoki,Fujii

CertifiedDentists of Complementary and AlternativeMedicine:Kakinoki,Tada

2016年度

Oral Care and Rehabilitation (Advanced) (Oral Care and Rehabilitation (Advanced))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Evaluation of QOL (Quality Of Life) and ADL (Activities Of Daily Living) Evaluation of vital signs	Practice	Kimura	(Preparation) QOL and ADL
3,4	Mental test and depression test	Practice	Kimura	(Review) Report
5,6	Evaluation of perioral muscle; Muscle related occlusion, mimic, and facial muscle	Practice	Kimura	(Preparation) How to use Muscle hardness meter
7,8	Evaluation of muscle related oral function; Neck and shoulder	Practice	Kimura	(Review) Report
9,10	Taste test	Practice	Kimura	(Preparation) Taste test
11,12	Evaluation of sense of intraoral and face	Practice	Kimura	(Review) Report
13,14	Saliva secretion test; Evaluation of resting saliva Spitting method	Practice	Kakinoki	(Preparation) Watte method Sialemesis method
15,16	Saliva secretion test; Evaluation of Saxon test and gum test	Practice	Kakinoki	(Preparation) Saxon test Gum test (Review) Report
17,18	Saliva secretion and distribution test; Evaluation by saliva wetness tester	Practice	Kakinoki	(Preparation) Saliva wetness tester
19,20	Physical inspection of saliva: Viscometer (ultrasonic type and rotation type) Spinnability measuring instrument	Practice	Kakinoki	(Preparation) Spinnability measuring instrument (Review) Report
21,22	Halitosis measurement and evaluation by oral chroma	Practice	Fujii	(Preparation) How to use Oral chroma
23,24	Examination1: Case presentation	-	-	Kakinoki
25,26	Improvement of oral function: Structural oral care and functional oral care	Practice	Fujii	(Preparation) Basic oral care skill
27,28	Improvement of oral function: Oral care using liquid and gel type oral moisturizer	Practice	Fujii	(Preparation) Oral moisturizers
29,30	Basic oral care skill for bedridden elderly	Practice	Fujii	(Review) Report

2016年度

Oral Care and Rehabilitation (Advanced) (Oral Care and Rehabilitation (Advanced))

開講年次	1 ~ 3 grades	期区分	通年	科目	Compulsory subject (Clinical)	単位数	4
授業方法	実習	時間数	120	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之						

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
31,32	Evaluation of oral mucosal disease Recode by intraoral camera	Practice	Fujii	(Preparation) Basic skill of intraoral camera
33,34	Evaluation of oral mucosa and tongue mucosa: Western and Chinese medical evaluation and diagnosis	Practice	Kakinoki	(Preparation) Evaluation of oral mucosa
35,36	Basic skill of tongue diagnosis	Practice	Kakinoki	(Preparation) Basic skill of tongue diagnosis, Chinese medicine
37,38	Choice of Chinese medicine by tongue diagnosis(1)	Practice	Kakinoki	(Review) Report
39,40	Choice of Chinese medicine by tongue diagnosis(2)	Practice	Kakinoki	(Review) Report
41,42	Choice of Chinese medicine by tongue diagnosis(3)	Practice	Kakinoki	(Review) Report
43,44	Guidance of health, life, and dietary by tongue diagnosis	Practice	Kakinoki	(Review) Report
45,46	Examination2 Case presentation	-	-	Kakinoki
47,48	Preparation of homebound treatment	Practice	Tada	(Preparation) Understanding of instrument
49,50	Choice of homebound treatment instrument	Practice	Tada	(Review) Report
51,52	Basic skill of homebound treatment with water(assistant)	Practice	Tada	(Preparation) Vacuum Syringe
53,54	Basic skill of homebound treatment with water(surgeon)	Practice	Tada	(Preparation) Engine Turbine
55,56	Denture repair for bedridden elderly	Practice	Tada	(Review) Report
57,58	Denture adjustment for bedridden elderly	Practice	Kakinoki	(Review) Report
59,60	Review, Examination3, Unit certification test	-	-	Kakinoki

2016年度

Geriatric Dentistry (Geriatric Dentistry)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之						

授業の概要

【Language】 English and Japanese

You will understand the research about geriatric dentistry and dysphagia rehabilitation.
You will learn method of assessment, treatment, and exercise.

学生の到達目標

You should achieve following assignments and increase the ability of understanding the research.

- 1.Understanding the basic geriatric dentistry
- 2.Understanding the basic dysphagia rehabilitation
3. Increasing the ability of evaluate the research of clinical and basic

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
percentage of attendance	15%
report and presentation	85%

その他

CertifiedDentists:Kakinoki,Fujii,Tada,Kimura,Kubota
Supervisor of DisabilityOralHealth:Kakinoki,Fujii
CertifyingPhysician:Kakinoki,Fujii,Tada,Kimura,Kubota
AccreditedSpecialist:Kakinoki,Fujii,Tada
Supervisor of Gerodontology:Kakinoki,Fujii
CertifiedDentists of DysphagiaRehabilitation:Kakinoki,Fujii
CertifiedDentists of Complementary and AlternativeMedicine:Kakinoki,Tada

2016年度

Geriatric Dentistry (Geriatric Dentistry)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	You will understand future prospect by searching and evaluating the literature related geriatric dentistry and oral care and rehabilitation.	Clinical lectures, Seminar, Reading papers	Kakinoki, Fujii, Tada, Kimura, Kubota	Searching textbooks and reading papers

2016年度

Geriatric Dentistry (Geriatric Dentistry)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之、久保田 潤平						

授業の概要

【English and Japanese】

You will understand basic integrative medicine related study of dental treatment for elderly and geriatric dentistry. You will learn method of assessment, treatment, and exercise.

You will learn action of Chinese medicine, and mechanism of action. You will learn method to apply for dental clinical of tongue diagnosis.

You will understand Chinese medicine and western medicine for dental treatment of elderly and learn knowledge to practice integrative medicine.

You will learn the research of clinical and basic related integrative medicine.

学生の到達目標

You should achieve following assignments and increase the ability of understanding the research.;

- 1.Understanding the basic integrative medicine
- 2.Understanding the basic Chinese medicine and western medicine
- 3.Understanding the basic complementary and alternative medicine, and applying clinical
4. Increasing the ability of evaluate the research of clinical and basic

テキスト

出)

著)

参考書

出)

著)

成績評価方法・基準

評価項目	割合
percentage of attendance	15%
report and presentation	85%

その他

CertifiedDentists:Kakinoki,Fujii,Tada,Kimura,Kubota

Supervisor of DisabilityOralHealth:Kakinoki,Fujii

CertifyingPhysician:Kakinoki,Fujii,Tada,Kimura,Kubota

AccreditedSpecialist:Kakinoki,Fujii,Tada

Supervisor of Gerodontology:Kakinoki,Fujii

CertifiedDentists of DysphagiaRehabilitation:Kakinoki,Fujii

CertifiedDentists of Complementary and AlternativeMedicine:Kakinoki,Tada

2016年度

Geriatric Dentistry (Geriatric Dentistry)

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Research) or	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之、久保田 潤平						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	You will understand future prospect by searching and evaluating the literature related integrative medicine and Chinese medicine and western medicine.	Clinical lectures, Exercises, Seminar	Kakinoki, Fujii, Tada, Kimura, Kubota	Lectures, Searching textbooks and reading papers

2016年度

Geriatric and Special Needs Dentistry (Advanced) (Geriatric and Special Needs Dentistry (Advanced))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Reserch) or	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之、久保田 潤平						

授業の概要

【English and Japanese】

You will understand particularity of dental treatment and oral care for elderly and special needs. You will learn method of assessment, treatment, and oral care. Especially, you should learn knowledge to practice homebound treatment and rehabilitation for bedridden elderly.

You will learn knowledge to practice dental treatment and rehabilitation for special needs, and dental treatment for patients who complain of psychogenic.

学生の到達目標

You should achieve following assignments and increase the ability of understanding the research.;

1. Understanding the geriatric dentistry
2. Understanding the clinical states and systemic disease of elderly and disability
3. Understanding the dental treatment of patients who complain of psychogenic general malaise
4. Increasing the ability of evaluate the research of clinical and basic about geriatric and special needs dentistry, and psychosomatic medicine.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
percentage of attendance	15%
report and presentation	85%

その他

CertifiedDentists:Kakinoki,Fujii,Tada,Kimura,Kubota
Supervisor of DisabilityOralHealth:Kakinoki,Fujii
CertifyingPhysician:Kakinoki,Fujii,Tada,Kimura,Kubota
AccreditedSpecialist:Kakinoki,Fujii,Tada
Supervisor of Gerodontolog:Kakinoki,Fujii
CertifiedDentists of DysphagiaRehabilitation:Kakinoki,Fujii
CertifiedDentists of Complementary and AlternativeMedicine:Kakinoki,Tada

2016年度

Geriatric and Special Needs Dentistry (Advanced) (Geriatric and Special Needs Dentistry (Advanced))

開講年次	1 ~ 4 grades	期区分	通年	科目	Compulsory subject (Reserch) or	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Kakinoki Y.						
担当教員	柿木 保明、藤井 航、多田 葉子、木村 貴之、久保田 潤平						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	You will understand future prospect, by searching and evaluating the literature. You will search latest knowledge and study: homebound treatment and oral care for elderly, dental treatment and rehabilitation for disability, and psychosomatic medicine.	Clinical lectures, Exercises, Seminar	Kakinoki, Fuji, Tada, Kimura, Kubota	Searching textbooks and reading papers

2016年度

Basic surgical skills (Basic surgical skills)

開講年次	1 ~ 3 grades	期区分	通年	科目	Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima H.						
担当教員	中島 秀彰						

授業の概要

【Language】 Japanese

This course provides basic knowledge of basic surgical skills and patients management during peri-operative period.

学生の到達目標

- 1) Understanding basic knowledge of metabolic response to surgical invasion in human body.
- 2) Understanding basic concept of patients care during pre- and post-operative period.
- 3) Understanding basic concept of patient safety and infection control in hospitals.
- 4) Understanding basic concept of clinical path and patient satisfaction.
- 5) Understanding basic knowledge of treatment and care of cancer patients.
- 6) Understanding basic knowledge of novel surgical devices.
- 7) Understanding basic concept of novel methods of surgical operation including navigation surgery and robotic surgery.
- 8) Understanding basic concept of training of endoscopic surgery.
- 9) Understanding basic knowledge of basic surgical skills.
- 10) Understanding basic knowledge of sports medicine.

テキスト

"Hyojun Geka " 13th ed.
出) Igaku Shoin, Tokyo

著) S. Kitano

参考書

出)

著)

成績評価方法・基準

評価項目	割合
Class participation	30%
participation and attitude	20%
oral exam	50%

その他

2016年度

Basic surgical skills (Basic surgical skills)

開講年次	1 ~ 3 grades	期区分	通年	科目	Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Nakashima H.						
担当教員	中島 秀彰						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Introduction and orientation	Lecture	Hideaki NAKASHIM A	Review
2	Metabolic response to surgical invasion in human body	Lecture	Hideaki NAKASHIM A	Review
3	Patients care during pre- and post-operative period and prevention of surgical complications	Lecture	Hideaki NAKASHIM A	Review
4	Basic surgical skills 1	Lecture and practical training	Hideaki NAKASHIM A	Review
5	Basic surgical skills 2	Lecture and practical training	Hideaki NAKASHIM A	Review
6	Patient safety and clinical path	Lecture	Hideaki NAKASHIM A	Review
7	Multimodality treatment and terminal care of cancer patients	Lecture	Hideaki NAKASHIM A	Review
8	Wound healing and sports medicine	Lecture	Hideaki NAKASHIM A	Review
9	Infection control in hospitals	Lecture	Hideaki NAKASHIM A	Review
10	Novel surgical devices	Lecture	Hideaki NAKASHIM A	Review
11	Robotic surgery and navigation surgery	Lecture	Hideaki NAKASHIM A	Review
12	Practical infection control and patient safety in hospitals	Lecture	Hideaki NAKASHIM A	Review
13	Training of endoscopic surgery	Lecture	Hideaki NAKASHIM A	Review
14	Training of endoscopic surgical skills using VR simulator	Lecture	Hideaki NAKASHIM A	Review
15	Management of nutrition and fluid / Oral examination	Lecture	Hideaki NAKASHIM A	Review

2016年度

Dental Anesthesiology (Cardiac physiology & Cardiac Medicine) (Dental Anesthesiology (Cardiac physiology & Cardiac Medicine))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Research) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業の概要

Every Monday evening (from 3:00 p.m.), the topic pick up the article in the textbook related to the basic cardiac physiology, and You present the summary of the article to the audience in the journal club.

学生の到達目標

- 1 . To augment the ability of the reading and understanding of the article written in English.
- 2 . To understanding the basic science and topics related to the cardiac physiology and cardiac medicine.
- 3 . To build up the ability to criticize the each part of the articles.

テキスト

Cardiovascular Physiology

出)

著)Mohrman and Heller

参考書

出)

著)

Pathophysiology of Heart Disease

出)

著)Lilly

成績評価方法・基準

評価項目	割合
oral presentations and discussion	100%

その他

Feel free to contact through the e-mail or visit directly our office, located in the 9th floor of Kyushu Dental University Hospital.

2016年度

Dental Anesthesiology (Cardiac physiology & Cardiac Medicine) (Dental Anesthesiology (Cardiac physiology & Cardiac Medicine))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Research) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Understanding the background and the basic knowledge in the textbook. You will present and discuss the core of the article in our journal club. 1. Cardiac Mechanics 2. Events of the Cardiac Cycle 3. Valvular Heart Disease 4. Cardiac Output 5. Coronary Circulation 6. Ischemic Heart Disease 7. Microcirculation and Lymph 8. Heart Failure 9. The Cardiomyopathies 10. The Pericardium	-	Watanabe	-

2016年度

Dental Anesthesiology (Cardiac physiology & Cardiac Medicine) (Dental Anesthesiology (Cardiac physiology & Cardiac Medicine))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Research) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業の概要

Every Tuesday evening (from 3:00 p.m.), the topic pick up the article in the textbook related to the basic cardiac physiology, and You present the summary of the article to the audience in the journal club.

学生の到達目標

- 1 . To augment the ability of the reading and understanding of the article written in English.
- 2 . To understanding the basic science and topics related to the cardiac physiology and cardiac medicine.
- 3 . To build up the ability to criticize the each part of the articles.

テキスト

Human Biology 540 Introduction to Cardiovascular Medicine

出) 著)

Cardiovascular Physiology

出) 著)Mohrman and Heller

Pathophysiology of Heart Disease

出) 著)Lilly

参考書

出) 著)

成績評価方法・基準

評価項目	割合
oral presentations and discussion	100%

その他

Feel free to contact through the e-mail or visit directly our office, located in the 9th floor of Kyushu Dental University Hospital.

2016年度

Dental Anesthesiology (Cardiac physiology & Cardiac Medicine) (Dental Anesthesiology (Cardiac physiology & Cardiac Medicine))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Research) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-15	Lecture 1 ~ 10, minor and final exam 11 ~ 15 Understanding the background and the basic knowledge in the textbook. You will present and discuss the core of the article in our journal club. 1. Cardiac Imaging 2. Fetal Development and Circulation 3. Congenital Heart Disease 4. Peripheral Vascular Disease 5. Circulatory Shock 6. Arrhythmia Management for the GP 7. Exercise and Aging 8. Cardiothoracic / Cardiovascular Surgery 9. ECG1 10. ECG2	-	Watanabe	-

2016年度

Dental Anesthesiology (Respiratory physiology and Pulmonary Pathophysiology) (Dental Anesthesiology (Respiratory physiology and Pulmonary Pathophysiology))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Research) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Watanabe						
担当教員	渡邊 誠之						

授業の概要

Every Monday evening (from 4:00 p.m.), the topic pick up the article in the textbook related to the basic respiratory physiology, and You present the summary of the article to the audience in the journal club.

学生の到達目標

- 1 . To augment the ability of the reading and understanding of the article written in English.
- 2 . To understanding the basic science and topics related to the respiratory physiology and pathophysiology.
- 3 . To build up the ability to criticize the each part of the articles.

テキスト

West ' s Respiratory Physiology: The Essentials, 10th Edition
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
oral presentations and discussion	100%

その他

2016年度

Dental Anesthesiology (Respiratory physiology and Pulmonary Pathophysiology) (Dental Anesthesiology (Respiratory physiology and Pulmonary Pathophysiology))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Research) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Watanabe						
担当教員	渡邊 誠之						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1 ~ 15	<p>Understanding the background and the basic knowledge in the textbook. You will present and discuss the core of the article in our journal club.</p> <ol style="list-style-type: none"> 1. Structure and Function 2. Ventilation 3. Diffusion 4. Blood flow and Metabolism 5. Ventilation-Perfusion Relationship 6. Gas Transport by the blood 7. Mechanics of Breathing 8. Control of ventilation 9. Respiratory system under stress 10. Test of pulmonary function 	-	Watanabe	-

2016年度

Dental Anesthesiology (Respiratory physiology and Pulmonary Pathophysiology) (Dental Anesthesiology (Respiratory physiology and Pulmonary Pathophysiology))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Research) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業の概要

Every Tuesday evening (from 4:00 p.m.), the topic pick up the article in the textbook related to the pulmonary pathophysiology, and You present the summary of the article to the audience in the journal club.

学生の到達目標

- 1 . To augment the ability of the reading and understanding of the article written in English.
- 2 . To understanding the basic science and topics related to the respiratory physiology and pulmonary pathophysiology.
- 3 . To build up the ability to criticize the each part of the articles.

テキスト

Pulmonary Pathophysiology: The Essentials, 8th Edition
出) (著)

参考書

出) (著)

成績評価方法・基準

評価項目	割合
oral presentations and discussion	100%

その他

Feel free to contact through the e-mail or visit directly our office, located in the 9th floor of Kyushu Dental University Hospital.

2016年度

Dental Anesthesiology (Respiratory physiology and Pulmonary Pathophysiology) (Dental Anesthesiology (Respiratory physiology and Pulmonary Pathophysiology))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Research) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
-15	Lecture 1 ~ 15 Understanding the background and the basic knowledge in the textbook. You will present and discuss the core of the article in our journal club. 1. Lung function tests and what they mean 2. Function of the diseased lung 3. Function of the failing lung	-	Watanabe	-

2016年度

Dental Anesthesiology Basic course (practice) (Dental Anesthesiology Basic course (practice))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Clinical) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業の概要

Lecture will be provided to understanding the basic respiratory and cardia monitoring and the practice related to the content of lecture will be carried out at the end of course.

学生の到達目標

Understanding the background and the basic knowledge in the textbook and getting the basic skill of the physiologic monitoring, respiratory and cardiac care.

テキスト

Visual Manual of Clinical Basic Techniques(Injection and collecting of blood, Tracheal intubation)

出)Yodosha

著)

Perioperative monitoring

出)Yodosha

著)

参考書

出)

著)

成績評価方法・基準

評価項目	割合
oral presentations and discussion	100%

その他

Feel free to contact through the e-mail or visit directly our office, located in the 9th floor of Kyushu Dental University Hospital.

2016年度

Dental Anesthesiology Basic course (practice) (Dental Anesthesiology Basic course (practice))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Clinical) / Elective	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-7	Lecture and practice 1. Respiratory monitoring 2. Cardiac monitoring 3. Other physiologic monitoring 4. Mask ventilation 5. Tracheal intubation 6. IV line 7. Clinical evaluation for respiratory and cardiac function	-	Watanabe	-

2016年度

Dental Anesthesiology(Advanced course) (Dental Anesthesiology(Advanced course))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Clinical)	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業の概要

Lecture will be provided to understanding the advanced respiratory and cardia monitoring and the practice related to the content of lecture will be carried out at the end of course.

学生の到達目標

Understanding the background and the basic knowledge in the textbook and getting the basic skill of the physiologic monitoring, respiratory and cardiac care.

テキスト

Visual Manual of Clinical Basic Techniques
出)Yodosha 著)

Perioperative monitoring
出)Yodosha 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
oral presentations and discussion	100%

その他

Feel free to contact through the e-mail or visit directly our office, located in the 9th floor of Kyushu Dental University Hospital.

2016年度

Dental Anesthesiology(Advanced course) (Dental Anesthesiology(Advanced course))

開講年次	1-4grades	期区分	通年	科目	Compulsory (Clinical)	単位数	2
授業方法	演習	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	S.Watanabe						
担当教員	渡邊 誠之						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1~7	Lecture and practice 1. Advanced Respiratory and cardiac monitoring 2. Central venous line, PICC 3. Pulmonary arterial catheter 4. Artificial ventilation 5. Motor Evoked Potential・Sensory Evoked Potential 6. rSO ₂ , brain metabolism 7. Clinical evaluation for advanced respiratory and cardiac function	-	Watanabe	-

2016年度

Clinical Dental Anesthesiology (Clinical Dental Anesthesiology)

開講年次	1-4grades	期区分	通年	科目	Compulsory subject(Clinical)	単位数	2
授業方法	講義	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Sago T						
担当教員	左合 徹平、椎葉 俊司、原野 望、渡邊 誠之 Certified Dentists of Dental Anesthesiology:Sago,Shiiba,Harano Specialist of Dental Anesthesiology:Sago,Shiiba,Harano Advisor of Anesthesiology:Watanabe						

授業の概要

There are general anesthesia, intravenous sedation, inhalation sedation and local anesthesia in clinical dental practice and these skills are essential in making secure dental practice. Various anesthesia method needed to be carried out safely and reliably anatomy, physiology, to understand the basic theory of image diagnosis, preoperative to acquire the knowledge necessary to patient assessment and anesthesia planning.

Simulation from anesthesia planning for the presented cases to perioperative management, performs feedback, enhancing the clinical capabilities of dental anesthesia.

学生の到達目標

1. Understanding the skills for collection of patients ' information.
2. Understanding the hospital and clinic cooperation.
3. Understanding the category of anesthesia.
4. Understanding the mechanism of abnormal vital signs.
5. Understanding about the disease requiring anesthesia administrative attention.
6. Learning the corresponding method for abnormal situation during surgery.
7. Learning the basics of advanced cardiac life support.

テキスト

Dental Anesthesiology
出)Ishiyaku Pub,Inc

著)

Miller ' s Anesthesia
出)

著)

参考書

出)

著)

成績評価方法・基準

評価項目	割合
oral presentations and oral examinations	100%

その他

2016年度

Clinical Dental Anesthesiology (Clinical Dental Anesthesiology)

開講年次	1-4grades	期区分	通年	科目	Compulsory subject(Clinical)	単位数	2
授業方法	講義	時間数	30hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Sago T						
担当教員	左合 徹平、椎葉 俊司、原野 望、渡邊 誠之 Certified Dentists of Dental Anesthesiology:Sago,Shiiba,Harano Specialist of Dental Anesthesiology:Sago,Shiiba,Harano Advisor of Anesthesiology:Watanabe						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Collection of preoperative informations	Lecture Reading of papers	Sago, Watanabe	Pre-and post-reading of textbook
2	Diseases that requires an anesthetic administrative attention (cardiovascular disease)	Lecture Reading of papers	Sago, Watanabe	Pre-and post-reading of textbook
3	Diseases that requirress an anesthetic administrative attention (respiratory disease)	Lecture Reading of papers	Sago, Watanabe	Pre-and post-reading of textbook
4	Diseases that requirress an anesthetic administrative attention (metabolic disease)	Lecture Reading of papers	Sago, Watanabe	Pre-and post-reading of textbook
5	Diagnostic imaging	Lecture Reading of papers	Sago, Watanabe	Pre-and post-reading of textbook
6	Classification and adaptation of various types of anesthesia	Lecture Reading of papers	Sago, Shiiba	Pre-and post-reading of textbook
7	General anesthesia(drug) Learning about the drug to be used in general anesthesia.	Lecture Reading of papers	Sago, Shiiba	Pre-and post-reading of textbook
8	General anesthesia (airway management) Learning about the various airway management device, to be proficient in its use.	Lecture Reading of papers	Sago, Shiiba	Pre-and post-reading of textbook
9	General anesthesia (postoperative management) Learning how to manage post-operative general anesthesia.	Lecture Reading of papers	Sago, Harano	Pre-and post-reading of textbook
10	Intravenous sedation Learning about the drug and actual intravenous sedation to be used for intravenous sedation.	Lecture Reading of papers	Sago, Harano	Pre-and post-reading of textbook
11	Inhalation sedation Pharmacological action of nitrous oxide, we learn about the actual nitrous oxide inhalation sedation.	Lecture Reading of papers	Sago	Pre-and post-reading of textbook
12	Perioperative troubleshooting Learning about various problems occurring in the perioperative and about the remedy.	Lecture Reading of papers	Sago	Pre-and post-reading of textbook
13	Case study	Lecture Pesentation	Sago, Shiiba, Harano, Watanabe	Textbook and case presentation
14	Case study	Lecture Pesentation	Sago, Shiiba, Harano, Watanabe	Textbook and case presentation
15	Case study	Lecture Pesentation	Sago, Shiiba, Harano, Watanabe	Textbook and case presentation

2016年度

Advanced Lecture (Advanced Lecture)

開講年次	1 ~ 4 grades	期区分	通年	科目	Optional subject (Basic)	単位数	1
授業方法	講義	時間数	26	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Director of Graduate School						
担当教員	歯学研究科長						

授業の概要

【Language】 English and Japanese

We invite researchers who are at the forefront, and they give the graduate school students current topics.

学生の到達目標

1. You can obtain the knowledge the current topics of the specialized area of each speaker.
2. You can understand the background of the study, motivation for the research, the results and discussion of the research.
3. You can consider and respond to the development of the future research.
4. You can use the content of lectures in your own research project.

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
attendance and report	100%

その他

2016年度

Advanced Lecture (Advanced Lecture)

開講年次	1 ~ 4 grades	期区分	通年	科目	Optional subject (Basic)	単位数	1
授業方法	講義	時間数	26	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Director of Graduate School						
担当教員	歯学研究科長						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Biological changes in outer space	Lecture	Baba H (Morimoto Y)	Review of lecture
2	Planning of clinical studies based on the clinical statistics	Lecture	Watanabe H (Ansai T)	Review of lecture
3	Regulation of skeletal morphogenesis by transcription factor	Lecture	Komori T (Jimi E)	Review of lecture
4	Bone, gut and metabolism linkage	Lecture	Hirata M (Takeuchi H)	Review of lecture
5	The new track of medical education	Lecture	Fujisaki K (Konoo T)	Review of lecture
6	Diagnosis of malignant tumors with PET-CT	Lecture	Koga H (Morimoto Y)	Review of lecture
7	Focus at the tongue as a multi-functional organ	Lecture	Ono T (Kawamoto T)	Review of lecture
8	Regenerative medicine using baby teeth	Lecture	Fukumoto S (Maki K)	Review of lecture
9	Jaw movement of childhood	Lecture	Hayasaki H (Maki K)	Review of lecture
10	From basic research to health promotion -Strategy by the control of oxidative stress-	Lecture	Ekuni D (Ansai T)	Review of lecture
11	A study of the practical use of powerful new anti-inflammatory agents to the same extent as the steroid with less side effects	Lecture	Okamoto K (Kitamura C)	Review of lecture
12	Role in food intake regulation of the nervous system to induce nausea	Lecture	Funahasi M (Ono K)	Review of lecture
13	Neuroscience of pain control through the glial cells	Lecture	Iwata K (Ono K)	Review of lecture

2016年度

Molecular Biological Morphology (Molecular Biological Morphology)

開講年次	1 ~ 2 grades	期区分	通年	科目	Elective	単位数	1
授業方法	演習	時間数	16	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業の概要

【Language】 English and Japanese

This course deals with the basis of fundamental morphological analysis. It also enhances the development of students' skill in carrying out a morphological experiment.

学生の到達目標

The goals of this course are to

- (1) be able to understand morphological analysis,
- (2) be able to prepare tissue section
- (3) be able to carry out immunohistochemistry
- (4) be able to carry out in situ hybridization

テキスト

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Usual performance score	60%
experimental performance in the lab	40%

その他

2016年度

Molecular Biological Morphology (Molecular Biological Morphology)

開講年次	1 ~ 2 grades	期区分	通年	科目	Elective	単位数	1
授業方法	演習	時間数	16	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Seta Y.						
担当教員	瀬田 祐司、豊野 孝、中富 満城、片岡 真司						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Introduction What is morphological analysis	Practice	Seta Toyono Nakatomi Kataoka	
2	Preparing method of tissue section (1): Fixation	Practice	Seta Toyono Nakatomi Kataoka	
3	Preparing method of tissue section (2): Embedding tissue	Practice	Seta Toyono Nakatomi Kataoka	
4	Preparing method of tissue section (3): Sectioning tissue	Practice	Seta Toyono Nakatomi Kataoka	
5	Immunohistochemistry (1): Apply first antibody	Practice	Seta Toyono Nakatomi Kataoka	
6	Immunohistochemistry (2): Apply second antibody	Practice	Seta Toyono Nakatomi Kataoka	
7	in situ hybridization (1): Probe preparation	Practice	Seta Toyono Nakatomi Kataoka	
8	in situ hybridization (2): Pre-treatment of section and antibody visualization of digoxigenin	Practice	Seta Toyono Nakatomi Kataoka	

2016年度

Molecular Biology Training Program (Molecular Biology Training Program)

開講年次	1 ~ 3 grades	期区分	夏期または冬期休暇期間中	科目	Elective Subject	単位数	1
授業方法	講義・演習	時間数	20hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Eijiro Jimi						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						
	D.D.Sc., Ph.D : Jimi,Kokabu,Matsubara						

授業の概要

Molecular biology pertains to the study of living systems at the molecular level, especially DNA and RNA, and provides a background for further work in the rapidly expanding areas of genomics, cell biology, biotechnology, microbiology, diagnostics, and therapeutics. Molecular biology methods are used extensively in modern day drug discovery, research and development, and diagnostics.

This course is intended for personnel who are seeking basic-level molecular biology training. This course will focus on selected aspects of molecular biology that provides principles for understanding the structure and functional relationships of molecular biology techniques including RNA isolation, cDNA synthesis (RT-PCR) and the preparation of whole cell lysates from cell and Western blotting.

学生の到達目標

1. Graduates of this program will be able to explain and discuss how processes are integrated at the molecular level to create a functional eukaryotic cell.
2. Graduates of this program will be able to prepare RNA and protein from cells.
3. Graduates of this program will have experience in and be able to perform RT-PCR and Western blotting.

テキスト

What is necessary is to use the experimental protocols in our laboratory.

出) 著)

What is necessary is to purchase a reference book according to your own necessity

出) 著)

(If you do not know what kind of reference book is suitable, we will be able to advise you).

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
the posture in your experiment	100%

その他

We accept your visit at any time at our office in the 10th floor of main building.

2016年度

Molecular Biology Training Program (Molecular Biology Training Program)

開講年次	1 ~ 3 grades	期区分	夏期または冬期休暇期間中	科目	Elective Subject	単位数	1
授業方法	講義・演習	時間数	20hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Eijiro Jimi						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						
	D.D.Sc., Ph.D : Jimi,Kokabu,Matsubara						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	Western blotting #1 Osteoblasts were treated with BMP and then prepared whole cell lysates.	Lecture and Practice	Jimi and Kokabu	Prepare for the protocol of preparation of whole cell lysates.
3,4	Western blotting #2 SDS-PAGE, Transfer, Blocking, and Incubation with primary antibody.	Lecture and Practice	Jimi and Matusbara	Prepare for the principal of Western blotting
5,6	?Western blotting #3 Incubation with secondary antibody and Detection. ?RT-PCR #1 Osteoblasts were treated with BMP and then prepared total RNA.	Lecture and Practice	Kokabu and Matsubara ,	Prepare for the protocol of preparation of Total RNA.
7,8	RT-PCR #2 cDNA synthesis and perform PCR	Lecture and Practice	Kokabu	Prepare for the principal of RT-PCR
9,10	RT-PCR #3 Agarose gel electrophoresis	Lecture and Practice	Kokabu	Review what was learned

2016年度

Molecular Biology Training Program (Molecular Biology Training Program)

開講年次	1 ~ 3 grades	期区分	夏期または冬期休暇期間中	科目	Elective Subject	単位数	1
授業方法	講義・演習	時間数	20hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Eiliro Jimi						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						
	D.D.Sc., Ph.D : Jimi,Kokabu,Matsubara						

授業の概要

Molecular biology pertains to the study of living systems at the molecular level, especially DNA and RNA, and provides a background for further work in the rapidly expanding areas of genomics, cell biology, biotechnology, microbiology, diagnostics, and therapeutics. Molecular biology methods are used extensively in modern day drug discovery, research and development, and diagnostics.

This course is intended for personnel who are seeking middle-level molecular biology training. This course will focus on selected aspects of molecular biology that provides principles for understanding the structure and functional relationships of molecular biology techniques including gene transfection, detection method of tagged-protein and luciferase assay.

学生の到達目標

1. Graduates of this program will be able to explain the principal of (reporter) gene transfection and how to detect of expression transfected genes in the cells.
2. Graduates of this program will have experience in and be able to detect tagged-protein.
3. Graduates of this program will have experience in and be able to perform luciferase assay.

テキスト

What is necessary is to use the experimental protocols in our laboratory.

出) 著)

What is necessary is to purchase a reference book according to your own necessity

出) 著)

(If you do not know what kind of reference book is suitable, we will be able to advise you).

出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
the posture in your experiment	100%

その他

We accept your visit at any time at our office in the 10th floor of main building.

2016年度

Molecular Biology Training Program (Molecular Biology Training Program)

開講年次	1 ~ 3 grades	期区分	夏期または冬期休暇期間中	科目	Elective Subject	単位数	1
授業方法	講義・演習	時間数	20hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Eihiro Jimi						
担当教員	自見 英治郎、古株 彰一郎、松原 琢磨						
	D.D.Sc., Ph.D : Jimi,Kokabu,Matsubara						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1,2	?Lecture about gene transfection, including principals, fusion-protein and detection. ?Transfection of FLAG or V5-tagged genes into cells.	Lecture and Practice	Jimi	Prepare for the principal of gene transfection
3,4	Perform Luciferase assay.	Lecture and Practice	Kokabu	Prepare for the principal of Luciferase assay
5,6	Detection of tagged-protein by Western blotting.	Lecture and Practice	Kokabu	Prepare for the protocol of Western blotting
7,8	Transfection of GFP-fused protein into cells.	Lecture and Practice	Matsubara	Prepare for the principal of GFP-fused protein
9,10	Observation of GFP-expressing protein using fluorescence microscope	Lecture and Practice	Matsubara	Review what was learned

2016年度

Neurophysiological Techniques (Neurophysiological Techniques)

開講年次	1 ~ 2 grades	期区分	通年	科目	Elective	単位数	1
授業方法	演習	時間数	16	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ono K.						
担当教員	小野 堅太郎、人見 涼露						

授業の概要

【Language】 English and Japanese

In this course, you will practice basic skills about makings of cell and tissue preparations, patch-clamp recording and evaluations of pain inductions in animal experiments.

学生の到達目標

1. To develop techniques of cell and tissue preparations
2. To understand how to record electrical signals from neurons
3. To understand how to evaluate pain in experimental animals

テキスト

出) _____ 著) _____

参考書

出) _____ 著) _____

成績評価方法・基準

評価項目	割合
course attendance	30%
report	70%

その他

2016年度

Neurophysiological Techniques (Neurophysiological Techniques)

開講年次	1 ~ 2 grades	期区分	通年	科目	Elective	単位数	1
授業方法	演習	時間数	16	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Ono K.						
担当教員	小野 堅太郎、人見 涼露						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1-8	Making of cell and tissue preparations Patch-clamp recording Measurements of pain-related behaviors	Practice	Ono Hitomi	Review of practices

2016年度

Imaging technique and its analysis (Imaging technique and its analysis)

開講年次	1 ~ 2 grades	期区分	通年	科目	Elective subject	単位数	1
授業方法	演習	時間数	16hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業の概要

【Language】 Japanese
You can learn the imaging techniques and analytical methods of CT, dental CBCT, MRI, and ultrasonography.

学生の到達目標

To comprehend the imaging techniques and analytical methods of CT, dental CBCT, MRI, and ultrasonography.

テキスト

出) 著)

参考書

Instruction manuals of CT、CBCT、MRI, and US
出) 著)

成績評価方法・基準

評価項目	割合
attendances	40%
reports	40%
practices	20%

その他

At every time, we are waiting for your visits about your study-counsel and advices at our departments in the 3rd floor of and the 11th floor of Dental Hospital.

2016年度

Imaging technique and its analysis (Imaging technique and its analysis)

開講年次	1 ~ 2 grades	期区分	通年	科目	Elective subject	単位数	1
授業方法	演習	時間数	16hours	曜日		時限	
開講学科	歯学研究科 歯学専攻						
科目責任者	Morimoto						
担当教員	森本 泰宏、田中 達朗、鬼頭 慎司、小田 昌史、松本 忍 Advisor of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito Specialist of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda Certified Dentists of Oral and Maxillofacial Radiology:Morimoto,Tanaka,Kito,Oda,Matsumoto						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1 ~ 3	Imaging techniques and analytical methods of CT and dental CBCT	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
4 ~ 6	Imaging techniques and analytical methods of MRI	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook
7,8	Imaging techniques and analytical methods of US	Practice	Morimoto, Tanaka, Kito, Oda, Matsumoto	Pre- and post-reading of textbook

2016年度

Clinical Research Design (Clinical Research Design)

開講年次	1 ~ 3 grades	期区分	前期	科目	Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻, 歯学研究科 口腔保健学専攻						
科目責任者	Kakudate N.						
担当教員	角舘 直樹、唐木 純一						

授業の概要

【Language】English and Japanese

In this lecture, you will learn basic aspects of clinical research design. In addition, to develop practical skills in Evidence-Based Dentistry (EBD), you will conduct a literature search based on a question you derive from your own dental practice, and make a presentation after critical appraisal of the selected papers.

学生の到達目標

At the completion of this course, you will be able to:

1. Formulate questions arising in clinical practice into research questions.
2. Understand the outlines of clinical study design.
3. Select appropriate clinical study designs.
4. Critically appraise clinical research papers and structured abstracts.
5. Practice Evidence-based Dentistry.

テキスト

Introduction to Evidence-Based Dentistry
出) Ishiyaku Publishers. 著)

参考書

Designing Clinical Research
出) 著) Stephen B Hulley

Guide to Practice-Based Research and Scientific Writing
出) Ishiyaku Publishers 著)

成績評価方法・基準

評価項目	割合
attendance	30%
deliverables during your coursework	50%
presentation	20%

その他

2016年度

Clinical Research Design (Clinical Research Design)

開講年次	1 ~ 3 grades	期区分	前期	科目	Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻, 歯学研究科 口腔保健学専攻						
科目責任者	Kakudate N.						
担当教員	角舘 直樹、唐木 純一						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Introduction to EBD: You will learn about the definition of EBD and clinical research.	Lecture	Kakudate	Definition of EBD/Level of evidence
2	Observational study: You will learn about critical appraisal of reports of observational studies.	Lecture	Kakudate	Critical appraisal/ Screening test
3	Study design: You will learn about epidemiological study design and biases.	Lecture	Kakudate	Study design/ Concept of bias
4	Randomized Controlled Trials: You will learn about critical appraisal of reports of RCT	Lecture	Kakudate	Critical appraisal of research articles of RCT
5	Research articles: You will learn about the structure of research articles and abstracts on clinical research	Lecture	Kakudate	Structure of the research articles and abstracts
6	EBD step 1: You will learn how to formulate an answerable question.	Lecture and Practice	Kakudate	P I C O: Formulate an answerable question
7	Outcome of interest: You will learn about outcome indicators in clinical research	Lecture and Practice	Kakudate	Measuring outcomes of interest
8	EBD step 2: You will learn how to search the literature using PubMed.	Lecture and Practice	Kakudate	Literature search
9	EBD step 2: You will learn how to search the literature using the Cochrane library and Minds.	Lecture and Practice	Kakudate	Cochrane review / Clinical guidelines
10	Systematic reviews and Meta-analyses: You will learn how to critically appraise systematic reviews and meta-analyses.	Lecture	Kakudate	Systematic review / Meta- analysis
11	Systematic reviews and meta-analyses: You will critically appraise research reports of meta-analyses.	Lecture and Practice	Kakudate	Critical appraisal of research papers of systematic reviews and meta-analysis
12	EBD step 3: You will perform critical appraisal of the literature based on your own research question	Lecture and Practice	Kakudate	Preparing PowerPoint presentations
13	Final presentation -Part 1-	Presentation	Kakudate Karaki	Preparing PowerPoint presentations
14	Final presentation -Part 2-	Presentation	Kakudate Karaki	Preparing PowerPoint presentations
15	Final presentation -Part 3-	Presentation	Kakudate Karaki	Preparing PowerPoint presentations

2016年度

Clinical Research Design (Clinical Research Design)

開講年次	1 ~ 3 grades	期区分	後期	科目	Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻, 歯学研究科 口腔保健学専攻						
科目責任者	Kakudate N.						
担当教員	角舘 直樹、唐木 純一						

授業の概要

【Language】 English and Japanese

In this lecture, you will obtain specialized knowledge on clinical research design and applied skills in the conduct of clinical research. In addition, you will develop the ability to create a study protocol based on a clinical question you derive from your own dental practice. Finally, you will make a presentation of the study protocol.

学生の到達目標

At the completion of this course, you will be able to:

1. Understand the process flow from the planning of clinical epidemiology research up to implementation.
2. Formulate a research question derived from your own dental practice.
3. Develop a research design.
4. Understand the basics of statistical hypothesis testing.
5. Create a research protocol.

テキスト

Introduction to Evidence-Based Dentistry
出) Ishiyaku Publishers. 著)

参考書

Designing Clinical Research
出) 著) Stephen B Hulley

Guide to Practice-Based Research and Scientific Writing
出) Ishiyaku Publishers. 著)

成績評価方法・基準

評価項目	割合
attendance	30%
deliverables during your coursework	50%
presentation	20%

その他

2016年度

Clinical Research Design (Clinical Research Design)

開講年次	1 ~ 3 grades	期区分	後期	科目	Elective	単位数	2
授業方法	講義・演習	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻, 歯学研究科 口腔保健学専攻						
科目責任者	Kakudate N.						
担当教員	角舘 直樹、唐木 純一						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	Introduction to clinical research: You will learn how to formulate an answerable question.	Lecture	Kakudate	PICO/Finer ' s check
2	Controlling bias part 1: You will learn how to control information bias and selection bias.	Lecture and Practice	Kakudate	Study design/Information and selection bias
3	Controlling bias part 2: You will learn how to control confounding bias.	Lecture and Practice	Kakudate	Confounding bias
4	Hypothetical conceptual model: You will learn how to build a hypothetical conceptual model.	Lecture and Practice	Kakudate	Hypothetical conceptual model
5	Selecting study design part 1: You will learn how to select an appropriate epidemiological study design.	Lecture and Practice	Kakudate	Epidemiological study design
6	Selecting study design part 2: You will learn how to plan and conduct epidemiological studies.	Practice	Kakudate	Epidemiological study design
7	Finding the Evidence Part 1: You will search the literature based on your PICO framework.	Practice	Kakudate	Literature search
8	Finding the Evidence Part 2: You will search the literature based on your PICO framework.	Practice	Kakudate	Literature search
9	Questionnaire survey: You will learn how to produce questionnaires and question items.	Lecture and Practice	Kakudate	Questionnaire survey
10	Statistical analysis part 1: You will learn the types of data and correlation.	Lecture	Kakudate	Correlation coefficient
11	Statistical analysis part 2: You will learn hypothesis testing and the chi-square test.	Lecture and Practice	Kakudate	Hypothesis testing/ Chi-square test
12	Statistical analysis part 3: You will learn statistical significance and the t-test.	Lecture and Practice	Kakudate	Research protocol for an Institutional Review Board
13	Final presentation -Part 1-	Presentation	Kakudate	Preparing PowerPoint presentations
14	Final presentation -Part 1-	Presentation	Kakudate, Karaki	Preparing PowerPoint presentations
15	Final presentation -Part 2-	Presentation	Kakudate, Karaki	Preparing PowerPoint presentations

2016年度

Introduction to Polymer Physics (Introduction to Polymer Physics)

開講年次	1 ~ 2 grades	期区分	後期	科目	大学間連携 (九工大)	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻, 歯学研究科 口腔保健学専攻						
科目責任者	Sakurai K.						
担当教員	〔非常勤講師〕 櫻井 和朗						

授業の概要

【Language】*English, Japanese, あるいはEnglish and Japaneseのいずれか
To conduct research on biopolymers and environmental materials, understanding physical properties of polymers is extremely important. This lecture explains physical properties of polymers.

学生の到達目標

Studying the several basic knowledge required in industrial field such as molecular distribution, crystallization, scattering, and rheology.

テキスト

出) 著)

参考書

Introduction to Polymer Physics
出) ISBN-10: 4785320567 著) F. Tanaka

成績評価方法・基準

評価項目	割合
Report	100%

その他

2016年度

Introduction to Polymer Physics (Introduction to Polymer Physics)

開講年次	1 ~ 2 grades	期区分	後期	科目	大学間連携 (九工大)	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻, 歯学研究科 口腔保健学専攻						
科目責任者	Sakurai K.						
担当教員	〔非常勤講師〕 櫻井 和朗						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	What is the Polymer	Lecture	Sakurai K.	Good preparations for classes and reviews after classes will enhance your performance
2	Single Chain Conformations	Lecture	Sakurai K.	
3	Configurations of Polymers	Lecture	Sakurai K.	
4	Conformations of Polymers	Lecture	Sakurai K.	
5	Crystalline State	Lecture	Sakurai K.	
6	Primary Crystallization	Lecture	Sakurai K.	
7	Secondary Crystallization	Lecture	Sakurai K.	
8	Rubber Elasticity	Lecture	Sakurai K.	
9	Viscoelasticity	Lecture	Sakurai K.	
10	Dielectric Property	Lecture	Sakurai K.	
11	Interfacial Property	Lecture	Sakurai K.	
12	Polymer and Scattering I 【Colloid】	Lecture	Sakurai K.	
13	Polymer and Scattering II 【Light scattering method】	Lecture	Sakurai K.	
14	Polymer and Scattering III 【Molecular weight】	Lecture	Sakurai K.	
15	Summary	Lecture	Sakurai K.	

2016年度

Biomaterials (Biomaterials)

開講年次	1 ~ 2 grades	期区分	前期	科目	大学間連携 (九工大)	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻, 歯学研究科 口腔保健学専攻						
科目責任者	Nakazawa K.						
担当教員	〔非常勤講師〕中澤 浩二						

授業の概要

【Language】 Official language for this subject : Japanese unless specified.

Biomaterial is any substance (other than drugs) or combination of substances synthetic and natural in origin, which can be used for any period of time, as a whole or as a system which treats, augments, or replaces any tissue, organ, or function of the body. In this lecture, we discuss the biomaterials.

学生の到達目標

テキスト

The materials are hand out by printed matters.
出) 著)

参考書

出) 著)

成績評価方法・基準

評価項目	割合
Active participation to the class	30%
Report	70%

その他

This lecture supports a student studying the field of animal cell culture, tissue engineering, and DDS.

2016年度

Biomaterials (Biomaterials)

開講年次	1 ~ 2 grades	期区分	前期	科目	大学間連携 (九工大)	単位数	2
授業方法	講義	時間数	30	曜日		時限	
開講学科	歯学研究科 歯学専攻, 歯学研究科 口腔保健学専攻						
科目責任者	Nakazawa K.						
担当教員	〔非常勤講師〕中澤 浩二						

授業計画

回	学習内容	授業方法	担当教員	事前・事後学習 学習課題
1	What are biomaterials ?	Lecture	Nakazawa K.	Good preparations for classes and reviews after classes will enhance your performance.
2	Necessary conditions of biomaterials	Lecture	Nakazawa K.	
3	Biocompatibility	Lecture	Nakazawa K.	
4	Foreign matter reactions	Lecture	Nakazawa K.	
5	Biomaterials and biological reactions	Lecture	Nakazawa K.	
6	Surface design of biomaterials	Lecture	Nakazawa K.	
7	Safety testing	Lecture	Nakazawa K.	
8	Metals	Lecture	Nakazawa K.	
9	Ceramics	Lecture	Nakazawa K.	
10	Polymers	Lecture	Nakazawa K.	
11	Composites	Lecture	Nakazawa K.	
12	Presentation and Discussion 1	Lecture	Nakazawa K.	
13	Presentation and Discussion 2	Lecture	Nakazawa K.	
14	Discussion	Lecture	Nakazawa K.	
15	Summary	Lecture	Nakazawa K.	