



Kagawa Education Institute of Nutrition
Japan Nutrition University

Syllabus

Graduate School of Japan Nutrition University

Year 2026

Health Sciences Degree Programs

Subjects Name, Credit Number, and The Prof. in charge

Subjects Name	Credit Number		Prof. in charge	Classes in cooperating English	Page
	Compulsory Subject	Elective Subject			
I Health Science					
Advanced Lectures on Health Promotion		2	Prof. Yuko Suketomo	✓	1
(Sat) Advanced Lectures on Health for the Mature and Elderly		2	Prof. Takashi Sekiya	✓	2
Advanced Lectures on Community Health		2			
Advanced Lectures on Occupational Health		2	Prof. Hiroshi Fukuda	✓	3
Advanced Lectures on Global Health		2			
Advanced Lectures on Health Sociology		2	Prof. Kazuhiro Nakayama	✓	4
Advanced Lectures on Health Statistic		2	Prof. Hiromitsu Ogata	✓	5
Advanced Lectures on Kinanthropometry		2	Prof. Masaharu Kagawa	✓	6
(Sat) Advanced Lectures on Sports Methodology		2	Prof. Yoshinori Kaneko	✓	7
II Clinical Pathophysiology and Biochemistry					
(Sat) Advanced Lectures on Clinical Biochemistry		2	Prof. Naoko Ikoshi	✓	8
Advanced Lectures on Molecular Biology		2	Prof. Akiko Fukushima	✓	9
Advanced Lectures on Microbiology and Infection Control		2			
Advanced Lectures on Immunology		2	Prof. Kenichi Ishibashi	✓	10
Advanced Lectures on Pediatric Pathology		2	Prof. Toru Akaike	✓	11
Advanced Lectures on Pathological Cytology		2			
Advanced Lectures on Clinical Hematology		2			
III Applied School Health Nursing					
Advanced Lectures on School Health Nursing		2	Prof. Nobuko Endo	✓	12
Advanced Lectures on Mental Health at School		2	Prof. Tsukasa Sasaki		13
Advanced Lectures on Gender Education		2	Prof. Toshimi Marui		14
Advanced Lectures on Young Child Health					
Advanced Lectures on Human Growth and Health		2	Prof. Shigeho Tanaka	✓	15
Advance lectured on School Welfare		2	Prof. Kouichirou Fukada	✓	16
Advanced Lectures on Pedagogy in Nursing		2			
VII Common Subject					
Research Methods in Health Sciences I (Information Processing)		1	Prof. Hiromitsu Ogata	✓	17
Research Methods in Health Sciences II (Experiments)		1	Prof. Kenichi Ishibashi	✓	18
Research Methods in Health Sciences III (Survey)		1	Prof. Masaharu Kagawa	✓	19
Research Methods in Health Sciences IV (Qualitive Research)		1	Prof. Kouichirou Fukada	✓	20
Advanced Common Lectures on Research Methods in Health Sciences I		1	Prof. Yoshinori Kaneko		21
Advanced Common Lectures on Research Methods in Health Sciences II		1			
Advanced Common Lectures on Research Methods in Health Sciences III		1			
Advanced Common Lectures on Research Methods in Health Sciences IV		1			
Comprehensive Lectures on Health Sciences	4		All full-time professors of health program (Prof. Kaneko)	✓	22
Comprehensive Seminars on Health Sciences	2		Prof. Koichiro Fukada	✓	23
Seminars	2	Thesis development	Each student's supervisor		
Experiment and Practicum	12	Thesis development	Each student's supervisor		
Compulsory Credits	20	Total necessary number of credit for graduation			30
Selective Credits	10				

Subject	Advanced Lectures on Health Promotion	Prof. Yuko Suketomo	Compulsory	☒ Selective	2 credit
Course goals					
Health promotion is a process that allows people to control and improve their health conditions and their determining factors. This activity encompasses social strategies to provide opportunities to give consideration to health in all life situations through educating individuals and, eventually, improving the social environment. Through this course, students will become able to recall and scientifically explain the actual health promotion activities in their research area. The goal of this course is related to the DP, which is to gain in-depth knowledge from a broad perspective of nutrition or health sciences.					
Course Summary					
Taking examples from health promotion initiatives in Japan and overseas, the evaluation framework will be explained, and discussions will be held based on the areas of interest of each student.					
Course Plan					
1) Introduction to Health Promotion (Keywords: Health Promotion) 2) WHO Health Promotion Strategy (Keywords: Ottawa Charter, Bangkok Charter) 2) WHO Health Promotion Strategies (Keywords: Ottawa Charter, Bangkok Charter) (3) Health Supportive Environment (Keywords: Environment, Health) 4) Health Literacy (Keywords: Health Literacy) 5) Creating Healthy Schools (Keywords: Health Promoting Schools) 6) Creating healthy workplaces (keywords: health management) 7) Health Communication (Keywords: Health Communication)			8) Health Education and Empowerment (Keywords: empowerment, health volunteer) 9) Social Capital (Keyword: Social Capital) 10) Healthy City (Keyword: Community Development) 11) Healthy Public Policy (Keywords: policy, plan, project, measure) 12) Social Determinants of Health (Keywords: social determinants, disparity) 13) Disease Control and Health Education (Keywords: Health Education, Prevention) Design of Health Promotion Research (Keywords: Research Design)		
Work to be done outside of class (preparation, etc.)					
Current information on health promotion policies from the WHO, the Ministry of Health, Labor and Welfare, the Ministry of Education, Culture, Sports, Science and Technology, and other relevant ministries and agencies will be provided, so be sure to read through them regularly. (About 200 minutes per week)					
Grading criteria		Textbooks		References	
• In-class performance (50%) • Reports (50%)		• 健康社会学会編. 事例分析でわかるヘルスプロモーションの5つの活動. ライフ出版、2016.		• 日本健康教育学会編. 健康行動理論による研究と実践. 医学書院、2019. • 島内憲夫, 鈴木美奈子. ヘルスプロモーション-WHO: バンコク憲章. 垣内出版、2012. • 島内憲夫, 鈴木美奈子. ヘルスプロモーション-WHO: オタワ憲章. 垣内出版、2013.	
		Materials		Remarks	
		Distributed as needed.		In order to enhance the discussion, each student will read an abstract of a paper in each class.	

Subject	Advanced Lectures on Health for the Mature and Elderly	Prof. Takashi Sekiya	Compulsory	☒ Selective	2 credit
Course goals and Course Summary					
Health, essentially, is considered to cover all matters necessary to live a healthy life, not only treating and preventing diseases. Therefore, health-related services are provided in various fields. This course aims to help students learn more practical health sciences through studies of those health-related services. Students will learn specific and practical health sciences by reference to health activities carried out by medical institutions, health insurance associations, local governments, private companies, educational institutions, etc. By understanding the processes of surveys, problem understanding, plan making, presentation, adjustments, budgeting, re-surveys, advertisement, implementation, accounting, reporting, post-surveys, etc., students will obtain abilities to think for themselves. The specific health checkups and specific health services, as well as mental health and stress checkups, which have recently become increasingly important, will be also discussed. In addition, folk health activities that are used by medical institutions, health insurance associations and private corporations, including supplements, Chinese medicine, aromatherapy, massage, exercise therapy, and music therapy, will be studied. Lectures also cover the application of artificial intelligence in the medical and health fields, as well as new forms of health sciences, such as living labs. The final goal is to enable students to make their own health plans. The goal of this course is related to the DP, which is to gain in-depth knowledge from a broad perspective of nutrition or health sciences.					
Course Plan					
1) Introduction 2) Overview: Introductory of health science 3) Specialized (Adult health: efforts of medical institutions, health examination, medical care, health guidance) 4) Specialized (Adult health: efforts of companies (occupational health), health committee, occupational health) 5) Specialized (Adult health: corporate (welfare) initiatives, health events, accommodation, sports gyms) 6) Specialized (Adult health: health insurance association, educational institution, social insurance system, union activities) health care for the elderly, home health care, community health care 7) Specialized (health care for the elderly, home health care, community health care) 8) Specialized (Other health services: Complementary and alternative medicine, etc.) 9) Overview: Basic knowledge to establish health services (laws, regulations, notices, etc.) 10) Practicum: Health field trip (1) Factories, hospitals, clinics, etc. 11) Practicum: Health field trip (2) Factories, hospitals, clinics, etc. 12) Practicum: Health field trip (3): Factories, hospitals, clinics, etc. 13) Practicum: Health field trip (4) Factory, hospital, clinic, etc. 14) Conclusion and research presentation					
Work to be done outside of class (preparation, etc.)					
The field experience will be a valuable experience. Students should spend about 200 minutes researching the materials assigned in class beforehand. We are planning to include factory tours, health checkup sites, and visits to clinics and hospitals. Due to circumstances in those organizations, the desired practical training may not be possible and may be changed to other training.					
Grading criteria	Textbooks	References			
This course emphasizes hands-on experience and practice. Three exams (oral or written) will be given to check the proficiency of the students. (In the event that students cannot attend the exams, they may submit reports, depending on the reason.) The standard for grading is a basic knowledge that enables you to develop your own health plan.	There are no specific textbooks. The materials will be prepared by the instructor.	Instructions or handouts will be provided in class. If you have other personal interests, please refer to books related to the Ministry of Health, Labor and Welfare, occupational health, nursing care insurance, health insurance, etc., which are of interest to you.			
	Materials	Remarks			
	Writing materials and notebooks are required. Internet access at home is recommended.	The progress of the class may change depending on the level of proficiency.			

Subject	Advanced Lectures on Occupational Health	Prof. Hiroshi Fukuda	Compulsory	☒ Selective	2 credit
Course goals and Summary					
Issues in industrial health have become diversified and complex in recent years, which now include issues specific to the working generation, such as “metabolic syndromes,” lifestyle-related diseases, mental health, and anti-smoking measures. As in the cases for community health and school health, health management and health promotion in work environment, where people spend most of their lives, will become increasingly important in the future. In this course, students will learn the measures and processes for conducting industrial health activities from the perspectives of the purposes and roles of industrial health programs. It also aims to help students understand the interest and significance of industrial health programs as well as the roles of nutritionists, by introducing initiatives taken by corporate employee cafeterias, the latest information on health promotions in the prime of life at international conferences and specific examples of typical days of industrial physicians. The goal of this course is related to the Diploma Policy, which is to gain in-depth knowledge based on a broad perspective of nutrition or health sciences.					
Course Plan					
1) General theory of industrial health (purpose and outline of industrial health) 2) Health management (Obligation and actual work of health management) 3) Health education and health promotion in occupational health 4) Health literacy and health management 5) Work environment management 5) Work environment management 6) Workplace management and workplace inspection 7) Anti-smoking measures (anti-smoking education in companies)			8) Needs-based measures (planning (Plan), implementation (Do), evaluation (Check), application and utilization of evaluation (Act)) 9) Preventive measures of infectious diseases in companies. (Influenza and COVID-19 countermeasures) 10) Mental health (stress check in companies) 11) Measures against metabolic syndrome 12) Group work and presentation 13) Health checkup, health guidance and health counseling (importance of health checkup, health and nutrition guidance) 14) Written examination		
Work to be done outside of class (preparation, etc.)					
Read carefully the handouts and materials distributed to deepen your understanding of occupational health activities. Read the reference book “Health Literacy” in advance, focusing on Chapter 7. (About 200 minutes per week)					
Grading criteria			Textbooks	References	
Evaluation will be based on class participation, group work, and written exams. Students will receive feedback on their presentations in the group work.			Textbooks will be designated as needed. Handouts will be distributed as needed.	①ヘルスリテラシー〔健康教育の新しいキーワード〕、福田洋・江口泰正編著、大修館書店、2016 ②ナッジ×ヘルスリテラシー、村山洋史・江口泰正・福田洋編著、大修館書店、2022 ③産業保健と看護2024年春季増刊・逆引きで問題解決！あるある事例から学ぶ産業保健現場のデータ活用術 金森悟・福田洋編著、株式会社メディカ出版、2024 ④産業保健マニュアル 第8版 産業医科大学教授 森見爾総編集、南山堂 ⑤みんなのヘルスプロモーション 私たちの健康はみんなとつくる、鈴木美奈子・福田洋・阪本直人編著、弘文堂、2025 ⑥デジタル×ヘルスリテラシー〔AI・SNS時代の“新”健康情報力〕、福田洋・江口泰正編著、大修館書店、2025	
Materials		Remarks			
Use health and safety videos and other necessary visuals as needed.		We believe that there is great potential for nutritionists to be active in the corporate and professional fields. We hope that many graduate students will take this course to increase their future job options and learn about and take on the new and challenging fields of occupational health and preventive medicine. In the class, we also plan to introduce the “Sanpo-kai (Occupational Health Study Group)” and “Clinical Epidemiology Seminar” to learn the basics of clinical epidemiology, research design, and statistical methods, where many occupational health staff members from actual companies gather and discuss things with each other in a multidisciplinary manner. Graduate students who have an interest in health in the working world are greatly welcomed.			

Subject	Advanced Lectures on Health Sociology	Prof. Kazuhiro Nakayama	Compulsory	☒ Selective	2 credit
Course goals and Summary					
Health sociology is a branch of sociology aimed at maintenance and promotion of health, elucidating the connection between people and relationships among people. In addition to diet and exercise, people’s mutual dependence and social connection, as well as ties among them, has become known to have larger influence on people’s health. The connection with other people has significant impacts on the formation and improvement of health literacy, which is the ability to gather, understand, evaluate, and use information about health issues. Health literacy is the ability to make informed and appropriate personalized decisions to fully utilize one’s potential and stay healthy; students will learn about the current state of health literacy and how to improve it. The goal of this course is related to the DP, which is to gain in-depth knowledge from a broad perspective of nutrition or health sciences.					
Course Plan					
1) 2) What is health literacy ? 3) 4) Health literacy among Japanese people and the happiness of being able to make decisions 5) 6) Confirming the reliability of information and communication to support health literacy 7) 8) Evaluation of information, decision-making skills, and the health literacy of children and the elderly			9) 10) Patient-centered decision support and decision-making guide 11) 12) Human relations and health promotion 13) 14) Health literacy in society Depending on the interests of the course participants, the course topics and time allotment may be changed, such as focusing on a particular theme.		
Work to be done outside of class (preparation, etc.)					
Students are required to read the materials and reference books presented in class.					
Grading criteria		Textbooks		References	
Evaluation will be made based on the attitude toward class participation and a report. (Comments will be given as feedback on the report.)		中山和弘: これからのヘルスリテラシー 健康を決める力. 講談社.		・福田洋・江口泰正編: ヘルスリテラシーー健康教育の新しいキーワード. 大修館書店 ・中山和弘: 看護学のための多変量解析入門. 医学書院	
		Materials			
				N/A	

Subject	Advanced Lectures on Health Statistic	Prof. Hiromitsu Ogata	Compulsory	☒ Selective	2 credit		
Course goals							
The topic of the course is the application of statistics in health sciences. The objectives of the course are as follows. (1) Students will become able to explain the basic concepts of statistics, which are the basis of methodologies in public health studies and health sciences. (2) Students will become able to apply the major statistical methods that are necessary in health education and health management. Mastering the basics of data analysis in this class will help students acquire research skills in health sciences.							
Course Summary							
In the first half of the course, students will learn about the importance of data as a scientific basis in public health studies and health sciences, basic concepts to handle quantitative data, specific methodologies according to data patterns, interpretation of results of analyses, and application to health education and health management. With the goal of enabling students to apply their knowledge and skills in practical situations, the course includes problem-solving exercises based on specific examples and simulation data. This course contributes to the achievement of the objectives outlined in the Master's Program Diploma Policy, specifically the acquisition of "research capabilities in the student's field of specialization or the competencies required of professionals with advanced expertise."							
Course Plan							
<table><tr><td>1) Basics of health statistics 2) Descriptive statistics and inferential statistics 3) Concepts of interval estimation and hypothesis testing 4) Correlation and regression analysis 5) Multiple regression analysis and logistic regression analysis 6) General linear model and generalized linear model 7) One-way analysis of variance</td><td>8) Multiple-way analysis of variance 9) Normality test and transformation of variables 10) Non-parametric test 11) Treatment of outliers and missing values 12) Classification of analysis methods 13) Confounding factors and estimation of causal relations 14) Points to note in multivariate analysis</td></tr></table>						1) Basics of health statistics 2) Descriptive statistics and inferential statistics 3) Concepts of interval estimation and hypothesis testing 4) Correlation and regression analysis 5) Multiple regression analysis and logistic regression analysis 6) General linear model and generalized linear model 7) One-way analysis of variance	8) Multiple-way analysis of variance 9) Normality test and transformation of variables 10) Non-parametric test 11) Treatment of outliers and missing values 12) Classification of analysis methods 13) Confounding factors and estimation of causal relations 14) Points to note in multivariate analysis
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Work to be done outside of class (preparation, etc.)							
At least 60 minutes of self-study for the assignment provided in class are required each week.							
Grading criteria			Textbooks	References			
• In-class performance (30%) • Reports (70%) Report assignments will be presented in class.			Handouts will be distributed in class.	緒方裕光編著. 疫学・健康統計学. 建帛社; 2021. 柳井晴夫・緒方裕光編著. SPSS による統計データ解析－医学・看護学・生物学・心理学の例題による統計学入門－. 現代数学社; 2020.			
			Materials	Remarks			
			N/A	N/A			

Subject	Advanced Lectures on Kinanthropometry	Prof. Masaharu Kagawa	Compulsory	☒ Selective	2 credit
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Course goals and Summary

This course will cover various topics related to the basic knowledge, techniques, and applications of anthropometry and body composition assessments that are fundamental assessment methods on human. This course is relevant to the diploma policy in acquiring knowledge and skills in methods of assessing human morphology and body composition, which are essential for practicing Health Sciences. Furthermore, the course will help the students to gain flexible and broad perspectives and the critical thinking skills that will enable them to use these techniques as healthcare professionals.

In order for humans to maintain good health and best performance, it is important to express their physiological functions normally as well as to the maximum extent possible. In order to correctly assess an individual's nutritional status and growth/developmental status that affect physiological functions and performance, appropriate knowledge and techniques for anthropometry and body composition must be acquired. In this course, the correct knowledge, techniques, and utilization of anthropometry and body composition assessments will be introduced through a combination of classroom lectures and practical experience.

Course Plan

1) History of anthropometry/Kinanthropometry and history 2) Measurement standards/Measurement standards, measuring devices, anatomical measurement points, practical skills 3) Anthropometry in a real setting/Practice planning, practical skills, data processing, statistical analysis 4) Factors affecting body measurement values/Proficiency, measurement error, calibration, change 5) Introduction of body composition assessments/Body composition, body composition assessments, hypotheses 6) Anthropometry and Body composition assessment / prediction equation, BIA method, practical skills 7) Kinanthropometry in auxanology/Growth and development, DOHaD, WHO	8) Kinanthropometry in obesity research/Obesity, body mass index, fat distribution, MetS 9) Kinanthropometry in research on aging/Frailty, sarcopenia, bone density 10) Kinanthropometry in psychology/Body image, ideal body shape, abnormal eating behavior, FUS 11) Kinanthropometry in sports medicine/Performance, somatotype, lean mass, PM 12) Anthropometry and Diversity / Diversity, Ethnicity, Gender, Region 13) Anthropometry and ethics/Ethics, cultural understanding, dignity 14) Anthropometry and body composition measurement – Summary – Summary and challenges
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Work to be done outside of class (preparation, etc.)

English papers may be used as lecture materials and therefore it is expected to review any materials provided prior to lectures and understand the content of the materials. In addition, students are expected to prepare for and review unfamiliar technical terms that they see in the materials and lectures to deepen their understanding. It is recommended that students take time for self-study (approximately the double of the lecture time).

Grading criteria

Grading criteria	Textbooks	References
	N/A. Handouts will be distributed as needed prior to class.	N/A
	Materials	Remarks
•Summary report on the papers used as materials in each class (50%) •Final summary report (50%) Students will be given feedback on the reports.	Lectures will be given using PowerPoint. Published papers may be used as references.	The content may be changed depending on the number of students. Since the course includes practical training, it will be held at the Institute of Nutritional Sciences, where the necessary equipment is available. The lectures may be held in a form of online lecture using Microsoft Teams

Subject	Advanced Lectures on Sports Methodology	Prof. Yoshinori Kaneko	Compulsory	☒ Selective	2 credit
Course goals and Summary					
In this course, students will develop the ability to understand the physical fitness components necessary for health promotion and the significance of exercise from the perspective of frailty prevention in a super-aged society, and to explain practical strategies based on the WHO "Guidelines on Physical Activity and Sedentary Behavior" and "Healthy Japan 21 (3rd Edition)." Furthermore, the course aims to enable students to explore the potential for health promotion utilizing local resources such as parks through the development of exercise methods and equipment suitable for daily life, their adaptation for specific target groups, continuous support based on behavior change, and the formulation of dissemination and evaluation plans. This course contributes to the development of students who possess "in-depth knowledge based on a broad perspective of health sciences," as outlined in the Diploma Policy, and enables students to acquire foundational knowledge and methods by moving back and forth between theory and practice. Students will systematically learn practical exercise methods aimed at maintaining and improving physical fitness, while also studying the concepts and methodologies related to the development, promotion, and evaluation of exercise equipment. Furthermore, by referencing case studies from Southeast Asia, where health promotion in parks is thriving, students will examine the potential and challenges of utilizing parks as health promotion facilities in Japan.					
Course Plan					
1) Importance of physical fitness in a super-aging society (super-aging society, frailty, physical fitness) 2) Physical fitness and exercise necessary for health promotion (physical fitness factors, the concept of exercise prescription) 3) Physical benefits of moderate exercise(Evidence) and Safety Management (moderate exercise, physical benefits) 4) WHO Guidelines on Physical Activity and Sedentary Behavior (Physical Activity, Sedentary Behavior, Recommended Levels) 5) Healthy Japan 21 (3rd Edition) and Physical Activity and Exercise (Healthy Japan 21 (3rd Edition), Physical Activity and Exercise Policies) 6) Development of exercise methods and equipment that can be practiced in daily life (1) methods of exercise (equipment development/safety and convenience)		7) Development of exercise methods and equipment that can be practiced in daily life (2) Applications and customizations by target audience (by target audience) 8) Exercise for health promotion and its continuity, behavior change (behavior change, ongoing support, self-monitoring) 9) Promotion of exercise methods and equipment, and creation of facilities (promotion, collaboration among stakeholders) 10) Evaluation of exercise programs: Outcomes, process, and safety (evaluation, outcome measures, process evaluation) 11) Health benefits of urban green spaces (urban green spaces, health benefits, factors promoting use) 12) Significance of using city parks as health promotion facilities (city parks, community resource, access) 13) Current status of health promotion in parks in Southeast Asia and its potential in Japan (South East Asia, exercise culture in parks, exercise facilities, environment) 14) Summary/wrap-up, mini-presentations/discussion (wrap-up, synthesis, action plan)			
Work to be done outside of class (preparation, etc.)					
Outside of class, students are required to do self-study (preparation, review, etc.) equivalent to twice the amount of class time and read the following books in advance. 1. WHO. WHO guidelines on physical activity and sedentary behavior. 2020. 2. 厚生労働省. 健康づくりのための身体活動・運動ガイド2023. (PDF) 3. 厚生労働省. アクティブガイド2023.(PDF) 4. American College of Sports Medicine. ACSM’s Guidelines for Exercise Testing and Prescription (12th ed.) 2025. 5. 一般社団法人 日本健康教育学会 (編).『健康行動理論による研究と実践』医学書院, 2019.					
Grading criteria		Textbooks	References		
・ In-class performance (70%) ・ Reports (30%)		Handouts will be distributed as needed.	Reference literature and materials will be provided in class.		
		Materials	Remarks		
			Classes will be conducted both face-to-face and online.		

Subject	Advanced Lectures on Clinical Biochemistry	Prof. Naoko Ikoshi	Compulsory	☒ Selective	2 credit		
Course goals							
Clinical laboratory technicians have a high level of expertise and are committed to their work. They expand their playing fields by participating in multi-disciplinary cooperation. They also become involved in task shifting, expanding their job scope. In addition, clinical laboratory technicians are considered to be best qualified for the positions to promote medical safety management calmly and systematically. Based on these, the course addresses ideal positions of clinical laboratory technicians with the experience and knowledge of a nutritionist in diverse ways. To that end, students will become able to approach and analyze the relationships between clinical testing and etiology and relationships between clinical conditions and clinical testing from multifaceted perspectives. Students will also have opportunities to contact with patients and their families to explain about the tests and give instructions while working on their surveys and research, developing capabilities of problem solution.							
Course Summary							
Students will learn how to be a nutritionist or clinical laboratory technician by communicating with mainly diabetic patients and their families.							
Course Plan							
<table><tr><td>1) 2) The position of the clinical laboratory technician in multidisciplinary cooperation – the spirit of hospitality and the attitude of listening 3) 4) Medical safety management 5) 6) Etiology and pathogenesis of diabetes mellitus</td><td>7) 8) Diagnostic criteria, goals, and tests for diabetes mellitus 9) 10) Complications and treatment of diabetes mellitus 11) Complications and treatment of diabetes mellitus 12) Education and guidance on diabetes mellitus, guidance on self-monitoring of blood glucose 13) 14) Conclusion and presentation</td></tr></table>						1) 2) The position of the clinical laboratory technician in multidisciplinary cooperation – the spirit of hospitality and the attitude of listening 3) 4) Medical safety management 5) 6) Etiology and pathogenesis of diabetes mellitus	7) 8) Diagnostic criteria, goals, and tests for diabetes mellitus 9) 10) Complications and treatment of diabetes mellitus 11) Complications and treatment of diabetes mellitus 12) Education and guidance on diabetes mellitus, guidance on self-monitoring of blood glucose 13) 14) Conclusion and presentation
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Work to be done outside of class (preparation, etc.)							
Review the basic aspects and read the literature and materials related to the research project as preparation. Research and read the handouts in advance. Students are expected to study on their own for double the time of the lecture.							
Grading criteria			Textbooks	References			
•Presentations and discussions (50%) •Reports (50%).			Instructions will be given as necessary.	Instructions will be given as necessary.			
			Materials	Remarks			
			Instructions will be given as necessary.	Set a day when you will visit an outside clinic or hospital in or around Tokyo for training.			

Subject	Advanced Lectures on Molecular Biology	Prof. Akiko Fukushima	Compulsory	☒ Selective	2 credit
Course goals and Summary					
The human genome has been analyzed, and analyses of all life phenomena at the genetic level have been advanced. In order to understand biological phenomena at the genetic level and advance research on them, it is necessary to understand molecular biological techniques and apply them to research. In this course, molecular biological techniques will be lectured to help students become able to explain the principles of each procedure and the type of analysis the procedure is used for. In addition, students will aim to obtain certification as an advanced biotechnology engineer (from Japan Association of Biotechnology Education). This is in line with the Master's Diploma Policy, which requires students to acquire a high degree of expertise and a broad perspective on nutritional science and health science.					
Course Plan					
1) Plasmids and phages 2) Libraries and cloning 3) Expression of cloned genes in <i>E. coli</i> 4) Introducing cloned genes into Mammalian cells 5) Preparation and analysis of DNA 6) Preparation and analysis of RNA 7) Preparation and analysis of Protein			8) Mutagenesis 9) ES cells 10) iPS cells 11) Transgenic animals and KO animals 12) Regenerative medicine 13) Laws and ethics 14) Basics of bioinformatics		
Work to be done outside of class (preparation, etc.)					
Review the undergraduate courses of "Biochemistry," "Molecular Nutrition," and "Molecular Biology." It is recommended that students spend approximately 60 minutes in total for preparation and review for each class.					
Grading criteria		Textbooks		References	
Evaluation will be based on reports. Feedback will be given on the submitted reports.		N/A		1. 佐久間慶子、福島亜紀子著 栄養と遺伝子のはなし—分子栄養学入門 技報堂出版 2. 有波忠雄、太田敏子、清水淑子、福島亜紀子、三村邦裕編 メディカルサイエンス遺伝子検査学 近代出版 3. 田村隆明著、基礎から学ぶ遺伝子工学 第3版 羊土社 4. 加藤久典、藤原葉子／編、栄養科学イラストレイテッド 分子栄養学 改訂第3版 羊土社 5. ジェームス・D・ワトソン著、中村桂子／翻訳、ワトソン遺伝子の分子生物学 第7版 東京電機大学出版局	
		Materials		Remarks	
		Materials will be distributed as needed.		N/A	

Subject	Advanced Lectures on Immunology	Prof. Kenichi Ishibashi	Compulsory	☒ Selective	2 credit
Course goals					
Under the theme of understanding diseases caused by disorders of the immune system, including allergies, and the impacts of lifestyle habits on the immune system, the goal of this course is to become able to understand the formation of general immunity and mucosal immunity, their connection with allergic diseases, stress and immunity, and the circadian rhythm of the immune system, and to examine and understand study cases regarding immunity and its related fields. The goal of this course is related to the Diploma Policy, which is to gain in-depth knowledge based on a broad perspective of nutrition or health sciences.					
Course Summary					
This course will provide lectures on immunity-related diseases and the connection between lifestyle habits and immunity. Students will have discussions on the topics of their interests to deepen understanding of these topics.					
Course Plan					
1) 2) Basics of immunity – How the immune system protects the body 3) 4) Circadian rhythm of the immune system – Mechanism of the body clock and its role in maintaining health 5) 6) Stress and immunity – Interaction between the nervous and endocrine systems and the immune system 7) 8) Local mucosal immunity – Mucosal immunity as a preventive device against foreign invasion 9) 10) Allergy – Tissue damage by immunological mechanisms, food allergy and its management 11) 12) Functions of intestinal flora and immunity 13) 14) Food and immunity – use of supplements, etc.					
Work to be done outside of class (preparation, etc.)					
In order to actively participate in class, students are required to search for literature on the key words of each lecture and the connection between the research theme they are planning to use and this special topic, and read it in advance (200 minutes per week).					
Grading criteria			Textbooks	References	
Evaluation will be based on participation in discussions of lecture content.			PowerPoint handouts, etc., will be distributed as needed.	「新版微生物と免疫」(林修編著、建帛社)、「栄養科学イラストレイテッド 生化学 改訂第2版」(園田 勝編、羊土社)、「時間生物学事典」(石田直理雄・本間研一編、朝倉書店)、「ストレスの事典」(河野友信・石川俊男編、朝倉書店)、「免疫と栄養」(横越英彦編、幸書房)、「臨床粘膜免疫学」(清野宏編、シナジー)	
			Materials	Remarks	
			PowerPoint slides for lectures	Online classes may be used in conjunction with the program, depending on the situation.	

Subject	Advanced Lectures on Pediatric Pathology	Prof. Toru Akaike	Compulsory	☒ Selective	2 credit		
Course goals							
Children are not simply miniature adults; there are many diseases specific to childhood. Students will gain a proper understanding of the normal human body and development in children, and use this foundation to comprehend the pathophysiology of childhood-specific diseases. Rather than covering the entire pediatric period, the course focuses on congenital pediatric diseases. By understanding fetal development—which is closely linked to their causes—students will gain insight into the pathophysiology and etiology of these conditions. Furthermore, the ultimate goal is to identify new causes of congenital pediatric diseases by searching for and carefully reading research papers. This course aims to cultivate individuals with in-depth knowledge based on the broad perspective of health sciences outlined in the Diploma Policy.							
Course Summary							
Students will gain an understanding of the pathophysiology of congenital pediatric diseases (particularly pediatric cardiovascular diseases), carefully read research papers on the causes and mechanisms of each disease, and deepen their understanding through discussion. They will also organize the causes of diseases that remain unexplained and devise scientific methods to elucidate them. Furthermore, they will present their findings and refine their work through discussion.							
Course Plan							
<table><tr><td>1) 2) Normal structure and function in children 3) 4) Fetal development 5) 6) Changes from fetus to newborn 7) 8) Pathophysiology of congenital disorders in children</td><td>9) 10) Causes of congenital disorders in children 11) 12) Research methods for elucidating the causes of congenital disorders in children 13) 14) Presentation of findings and discussion</td></tr></table>						1) 2) Normal structure and function in children 3) 4) Fetal development 5) 6) Changes from fetus to newborn 7) 8) Pathophysiology of congenital disorders in children	9) 10) Causes of congenital disorders in children 11) 12) Research methods for elucidating the causes of congenital disorders in children 13) 14) Presentation of findings and discussion
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Work to be done outside of class (preparation, etc.)							
Carefully read the readings assigned for each class session. In addition, identify and carefully read academic papers related to the course content that interest you. Furthermore, prepare a PowerPoint presentation summarizing your findings in preparation for the final presentation. These self-study activities will require approximately twice the amount of time as the class sessions (200 minutes).							
Grading criteria			Textbooks	References			
•Participation of discussions in classes (50%) •Presentation (50%).			None	None			
			Materials	Remarks			
			Materials will be distributed as needed.	None			

Subject	Advanced Lectures on School Health Nursing	Prof. Nobuko Endo	Compulsory	☒	Selective	2 credit
Course goals and Summary						
Based on the significance and purpose of school health, students will be able to recognize the current physical and mental health problems and developmental issues of children, as well as the actual conditions and various issues surrounding school health, and to explore and understand what is desired of school health, how to improve it, and approaches to problem-solving.						
Students will learn about the reality of children growing up under the influence of changing societies and families through changes in politics, culture, economy, education, etc. The course will also cover the various problems and issues that school health is currently facing; in relation to the roles of school nurse teachers who are central to school health, school education and school health organization activities, school health and safety planning, and cooperation between families, local communities, and specialized institutions. The course will also consider how the school works as a team and how to cooperate with other actors in school health to solve problems. The goal of this course is related to the DP, which is to gain in-depth knowledge from a broad perspective of nutrition or health sciences.						
Course Plan						
The first and the last sessions will be face-to-face lectures, but the second and subsequent sessions will be held online depending on the number of students enrolled and the circumstances. 1) Meaning and purpose of school health, domain and structure Students will research and discuss the changes in pupils' health issues and recent trends and issues in school health, then explore possible ways to solve such issues. (Keywords: health issues, health education, health management) 2) History and transition of school health Students will research and discuss the changes in pupils' health issues and recent trends and issues in school health, then explore possible ways to solve such issues. (Keywords: school health, history, school nurse guidance, school nurse teacher) 3) 4) 5) Trends in pupils' health issues and school health: Students will research and discuss the changes in pupils' health issues and recent trends and issues in school health, then explore possible ways to solve such issues. (Keywords: truancy, bullying, abuse, Council for the Implementation of Education Rebuilding) 6) – 10) Research methods in the field of school health: Students will examine literature adopting different research designs for investigation of actual conditions and problem-solving in school health to learn about various research methods. (Keywords: research plan, research design) 11) 12) Critique of thesis Students will learn the purpose and significance of critique and the methods of critique for each research design. Keywords: critique, research design 13) 14) Presentation, discussion and critique Each participant will perform an abstract and critique of a selected paper, present the results, and discuss them with the participants. Keywords: paper abstract, critique, peer review						
Work to be done outside of class (preparation, etc.)						
For preparation, read the specified materials and do the assignments presented (about 100 minutes). For review, students will review the materials distributed during the lecture (about 100 minutes).						
Grading criteria	Textbooks	References				
• Performance on assignments (70%) • Report (30%) The theme of the report will be the medium of the presentation and the manuscript of the presentation that each student gave in the 14th session.	Textbooks will be assigned in the first class.	References will be assigned in the first class.				
	Materials	Remarks				
	Materials will be distributed as needed.	Students must participate at least once in a meeting of the Japanese Association of School Health or other related academic societies or attend a research class held at schools and submit a report on what they learned. Classes will be comprised of various forms, including lectures, discussions, hands-on tasks, and student presentations. As part of the graduate program, students are expected to invest all the knowledge and experience they currently have and independently engage in problem-solving.				

Subject	Advanced Lectures on Mental Health at School	Prof. Tsukasa Sasaki	Compulsory	☒ Selective	2 credit		
Course goals							
The goal of this course is to help students acquire basic knowledge about children’s psychological development and disabilities and mental health and disabilities. Also, it aims to raise skills of students for the management of school nurse’s rooms and health consultation activities pertaining to mental issues to the professional’s level using the knowledge. The goal of this course is related to the DP, which is to gain in-depth knowledge from a broad perspective of nutrition or health sciences.							
Course Summary							
First, the knowledge on mental health learned in the undergraduate programs will be reviewed and more accurate knowledge will be acquired. Then, students will obtain knowledge and skills needed at school, including how to evaluate children’s mental health and disabilities, as well as developmental disabilities, response to children and their parents when they suspect problems, collaboration with other teachers and staff, how to improve knowledge of children, parents, teachers and staff members on mental health, and collaboration with physicians and other specialists. All issues will be covered in the forms of lectures, literature readings, and discussions.							
Course Plan							
<table><tr><td>1) General theory of school mental health 2) Child development, disability and related factors 3) Age of onset, frequency, course, and major symptoms of mental disorders 4) Assessment of mental health 5) Sleep, sleep disorder and orthostatic regulation disorder 6) Hyperventilation syndrome, anxiety, and adjustment disorder 7) Depression, bipolar disorder and related disorders 8) Schizophrenia, autism spectrum disorder and ADHD</td><td>9) Eating disorders and addictions 10) Early detection, early response and education on mental illness 11) Doing what you can: dealing with parents and teachers 12) Management of Health Office and Cooperation with School Counselor 13) How to continue sharing information with psychiatrists 14) Overview of school mental health: Confirmation of the contents of study</td></tr></table>						1) General theory of school mental health 2) Child development, disability and related factors 3) Age of onset, frequency, course, and major symptoms of mental disorders 4) Assessment of mental health 5) Sleep, sleep disorder and orthostatic regulation disorder 6) Hyperventilation syndrome, anxiety, and adjustment disorder 7) Depression, bipolar disorder and related disorders 8) Schizophrenia, autism spectrum disorder and ADHD	9) Eating disorders and addictions 10) Early detection, early response and education on mental illness 11) Doing what you can: dealing with parents and teachers 12) Management of Health Office and Cooperation with School Counselor 13) How to continue sharing information with psychiatrists 14) Overview of school mental health: Confirmation of the contents of study
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Work to be done outside of class (preparation, etc.)							
Students will be required to read articles related to the class theme as homework in order to improve their understanding of the class.							
Grading criteria			Textbooks	References			
- In-class performance (40%) - Reports (30%) - Exam during the final class session (30%)			N/A	佐々木 司・竹下君枝: 著、精神科医と養護教諭がホンネで語る思春期の精神疾患(少年写真新聞社)			
			Materials	Remarks			
			Other materials will be announced (or distributed) on a case-by-case basis.	The class will be a combination of lectures, discussions, and simulated practice. In all cases, be sure to take notes.			

Subject	Advanced Lectures on Gender Education	Prof. Toshimi Marui	Compulsory	☒ Selective	2 credit		
Course goals and Summary							
•Students will become able to understand and explain the significance and necessity of sexuality education in school education. •Students will become able to understand that comprehensive sexuality education in school is structured based on facts and scientific evidence regarding sexual and reproductive health, sexuality, behavior, and attitude. •Students will become able to examine the current state of sexuality education in Japan in comparison with the situation in other countries and to specifically consider issues of sexuality education in Japan. This course is related to the DP's requirements of “acquiring in-depth academic knowledge based on a broad perspective” and “developing the ability to set and consider research issues,” and aim for the development of professionals with advanced expertise and practical knowledge.							
Global trends in sexuality education are to see sexuality from the perspectives of human rights and science and to aim at ensuring the sexual health of all children. Meanwhile, in Japan, due in part to the sexuality education bashing which has continued since 2002, educators have tended to express a cautious attitude toward guidance on sexuality in school. Even now problems regarding sex related to youth continue to exist, highlighting that there remain issues due to the lack of appropriate sexuality education. In light of these circumstances, this course will examine the current state of sexuality education in Japan in comparison with the situation in other countries and consider issues of sexuality education in Japan and comprehensive sexuality education in school.							
Course Plan							
<table><tr><td> <u>1) Subject Orientation, the current status of sexuality education in other countries</u> Orientation: Considering the differences between sex education in Japan and other countries. <u>2) Understanding of sexual diversity</u> Reflections on education regarding sexual diversity. <u>3) Understanding comprehensive sexuality education(CSE)</u> Understand the objectives, target audience, and content of comprehensive sexuality education. <u>4) Effective implementation of a CSE program</u> Understand the key concepts, topics, and learning objectives of the International Guidelines on Sexuality Education. <u>5) Current status and issues surrounding sex and sexuality education in Japan</u> Gender and young people's sexual behavior: <u>6) Sexuality-related guidance in schools</u> Sexuality-related guidance and government educational guidelines: <u>7) Prevention of sexually transmitted diseases</u> Counseling and testing: </td><td> <u>8) HIV/AIDS and our lives</u> Testing and treatment, employment of HIV-positive people: <u>9) Pregnancy, childbirth and abortion as reproductive health/rights (1)</u> Reproductive Health and Rights: <u>10) Pregnancy, childbirth, and abortion as reproductive health/rights (2)</u> Contraceptive methods, self-determination: <u>11) Responding to and preventing sexual violence through education</u> Understanding sexual violence and prevention education <u>12) Partnership System and Same-Sex Marriage Litigation</u> Local government initiatives and same-sex marriage lawsuits:¥ <u>13) Sexuality Education Workshop (1)</u> Presentation and group discussion <u>14) Sexuality education workshop (2)</u> Presentation and group discussion </td></tr></table>						<u>1) Subject Orientation, the current status of sexuality education in other countries</u> Orientation: Considering the differences between sex education in Japan and other countries. <u>2) Understanding of sexual diversity</u> Reflections on education regarding sexual diversity. <u>3) Understanding comprehensive sexuality education(CSE)</u> Understand the objectives, target audience, and content of comprehensive sexuality education. <u>4) Effective implementation of a CSE program</u> Understand the key concepts, topics, and learning objectives of the International Guidelines on Sexuality Education. <u>5) Current status and issues surrounding sex and sexuality education in Japan</u> Gender and young people's sexual behavior: <u>6) Sexuality-related guidance in schools</u> Sexuality-related guidance and government educational guidelines: <u>7) Prevention of sexually transmitted diseases</u> Counseling and testing:	<u>8) HIV/AIDS and our lives</u> Testing and treatment, employment of HIV-positive people: <u>9) Pregnancy, childbirth and abortion as reproductive health/rights (1)</u> Reproductive Health and Rights: <u>10) Pregnancy, childbirth, and abortion as reproductive health/rights (2)</u> Contraceptive methods, self-determination: <u>11) Responding to and preventing sexual violence through education</u> Understanding sexual violence and prevention education <u>12) Partnership System and Same-Sex Marriage Litigation</u> Local government initiatives and same-sex marriage lawsuits:¥ <u>13) Sexuality Education Workshop (1)</u> Presentation and group discussion <u>14) Sexuality education workshop (2)</u> Presentation and group discussion
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Work to be done outside of class (preparation, etc.)							
A list of literature related to the lecture will be distributed at the beginning of the course, so please study it beforehand.							
Grading criteria			Materials/References				
50% of the evaluation will be based on contribution to the progress of the class development (ordinary points) and 50% on submission of reports.			橋本紀子、池谷壽夫、田代美江子編著『教科書にみる世界の性教育』かもがわ出版、2018年、橋本紀子、田代美江子、関口久志編著『ハタチまでに知っておきたい性のこと』改訂版、大月書店、2025年を使用するが、その他、資料を配付し、適宜、他の参考書を紹介する。				

Subject	Advanced Lectures on Human Growth and Health	Prof. Shigeho Tanaka	Compulsory	☒ Selective	2 credit
Course goals					
The course aims to help students scientifically understand the evaluation methods and importance of nutrition status (obesity and thinness) and lifestyle habits, and to help students recognize their own awareness and solving methods of problems. As stated in the Diploma Policy, the goal of this course is related to the DP, which is to gain various and in-depth knowledge from a broad perspective of nutrition or health sciences.					
Course Summary					
Nutritional status and the lifestyle habits such as diet, physical activity, sedentary behavior and sleep as the determinants are often discussed in children, but to truly understand them requires scientific interpretation based on appropriate assessment and investigation methods and experimental and research results for each. Therefore, based on the collection and interpretation of scientific findings and an understanding of evaluation methods and experimental design, we will explore issues and solutions related to lifestyle and nutritional status.					
Course Plan					
1) Introduction: Importance of scientific evidence and thinking from the perspective of the discrepancy between "common knowledge" and scientific knowledge 2) 3) Method of collecting and reading literature 4) 5) Current status of obesity and thinness in children and evaluation methods 6) 7) Causes of obesity in children and countermeasures 8) 9) Current status and evaluation methods of physical activity and sedentary behavior in children 10) 11) Evaluation of lifestyle in general and physical strength, including sleep 12) 13) 14) Conclusion and report writing					
Work to be done outside of class (preparation, etc.)					
Students are expected to make a habit of organizing information obtained in class and from various media, etc., and investigating it on their own, not accepting information without questioning. Students are expected to summarize the issues raised in class (e.g., review of articles) before coming to each class session, as well as to divide up the issues and make their own presentations using PowerPoint. The time required for self-study is about double the class time.					
Grading criteria			Textbooks	References	
In-class performance (50%) Presentation (50%)			N/A	N/A	
			Materials	Remarks	
			Materials will be prepared as needed.	N/A	

Subject	Advance lectured on School Welfare	Prof. Kouichirou Fukada	Compulsory	☒ Selective	2 credit
Course goals					
In today's society, where many health issues are intermingled in a complex manner, the school, which is located at the forefront of public education, is a place where the function of educating children is performed as well as a place where the welfare function is performed. The goal of this class is to understand the social environment in which children are placed and to be able to explain the welfare role that schools play in the community. One of the goals of the program is to deepen students' understanding of children and families, as well as to help them learn theoretically and practically how to cooperate across educational and welfare professions and how to collaborate with multiple organizations, and to become a leader in school welfare. This is related to the acquisition of "necessary abilities as a highly skilled professional" as stated in the diploma policy.					
Course Summary					
First, students will deepen their experiential understanding of the welfare issues facing schools today. Next, students will read literature on school welfare and study its history, philosophy, and recent trends from a theoretical perspective. Subsequently, students will interact with the local social welfare council and become involved in the practical activities of the school welfare program. A series of observation records of the process will be compiled and a report will be prepared. Through the above, the current status and issues of school welfare will be examined.					
Course Plan					
(1) What is school welfare? Grasp the reality of school welfare through on-site experience and video viewing. Keywords: school welfare, educational welfare, local community		(5) Teachers and School Welfare Through the study of relevant literature, this course examines the characteristics of contemporary school teachers. Recognizing that the difficulties children face are closely linked to those experienced by adults, the course explores ways to alleviate these adult struggles. Keywords: school teachers, school culture, culture of care			
(2) Schools and Social Work Recognize the welfare function of schools and the role of school social workers. Keywords: school social worker (SSW), welfare education, community activity practice		(6) Adolescents and School Welfare Through literature review, this course will examine the characteristics of adolescents and the welfare roles of schools and communities. Keywords: adolescence, youth support, youth work			
(3) Children and School Welfare Through the study of relevant literature, this course examines the evolution of views on children in modern society. It considers children as social beings and explores the role that school education should play. Keywords: perspectives on children, children as social beings, acceptance		(7) - (12) Practice of School Welfare Examine and conduct actual school welfare programs in cooperation with local social welfare councils. Keywords: social welfare councils, sub-community welfare activities, volunteer activities			
(4) Family and School Welfare Through the study of relevant literature, this course discusses the biological and sociological needs of the family. It examines how family structures have changed due to shifts in social structure and how parenting behaviors have evolved. Keywords: modern family, family structures, parenting		(13, 14) Examination of School Welfare Students will summarize what they have learned through this course in a report and consider the current status and issues of school welfare. Keywords: social work, multidisciplinary cooperation, collaboration with multiple institutions			
Work to be done outside of class (preparation, etc.)					
Students are expected to read the assigned literature and prepare a resume prior to class. Discussions will be held in class based on the resumes. In addition, students will be involved in practical activities both off campus and outside of class hours, as we plan to collaborate with the Council of Social Welfare.					
Grading criteria		Textbooks	References		
• In-class performance (60%) • Reports (40%)		鈴木庸裕編『学校福祉とは何か』(ミネルヴァ書房、2018年)。事前購入のこと。	To be introduced		
		Materials	Remarks		
		To be introduced	N/A		

Subject	Research Methods in Health Sciences I (Information Processing)	Prof. Hiromitsu Ogata	Compulsory	☒ Selective	1 credit								
Course goals													
(1) Understand the basic methods of statistical surveys and be able to process the data obtained. (2) To be able to explain the basic theories of statistics necessary for data analysis. (3) To be able to explain the significance and calculation methods of various statistical indicators derived from data. (3) Explain the significance and calculation methods of various statistical indicators derived from data (4) Explain the outline of published health statistics													
Course Summary													
Students will learn the basic theories of statistics, significance and calculation methods of statistical indices, basic statistical survey methods, and statistical analysis methods necessary for conducting quantitative research in the fields of health and nutrition. In particular, students will learn the scientific concepts of data collection, analysis, and interpretation, with the aim of being able to conduct research that will provide scientific evidence in the fields of health and nutrition. This course contributes to the achievement of the objectives outlined in the Master's Program Diploma Policy, namely, "acquiring the research capabilities in one's field of specialization or the competencies required of a professional with advanced expertise."													
Course Plan													
<table><tr><td>1) Significance of statistics (Introduction)</td><td>5) Correlation and regression analysis</td></tr><tr><td>2) Methods of descriptive statistics</td><td>6) Statistical inference about frequency</td></tr><tr><td>3) Fundamentals of statistical estimation and testing</td><td>7) Interpretation and application of statistical analysis results</td></tr><tr><td>4) Statistical inference about mean value</td><td></td></tr></table>						1) Significance of statistics (Introduction)	5) Correlation and regression analysis	2) Methods of descriptive statistics	6) Statistical inference about frequency	3) Fundamentals of statistical estimation and testing	7) Interpretation and application of statistical analysis results	4) Statistical inference about mean value	
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2) Methods of descriptive statistics	6) Statistical inference about frequency												
3) Fundamentals of statistical estimation and testing	7) Interpretation and application of statistical analysis results												
4) Statistical inference about mean value													
Work to be done outside of class (preparation, etc.)													
Students are expected to prepare and review about 400 minutes per week for the assignments presented in each class.													
Grading criteria		Textbooks	References										
• In-class performance (30%) • Reports (70%) Report assignments will be presented in class.		Handouts will be distributed as needed.	緒方裕光編著. 疫学・健康統計学. 建帛社; 2021										
		Materials	Remarks										
		N/A	N/A										

Subject	Research Methods in Health Sciences II (Experiments)	Prof. Kenichi Ishibashi	Compulsory	☒ Selective	1 credit
Course goals and Summary					
Based on knowledge of biology and microbiology, specifically, understand and be able to perform simple techniques for bioactivity assessment, including aseptic manipulation, cell culture, and bioactivity assessment. Engage in research competence in the major field of study of the Diploma Policy.					
Course Plan					
1) 2) Practical aseptic manipulation methods 3) 4) Practical cell culture			5) 6) Actual experiments for evaluation of biological activity 7) Summary		
Work to be done outside of class (preparation, etc.)					
Students will search the literature on their planned research topics and learn about the techniques used to evaluate biological activity. It is recommended that students spend at least 200 minutes in total for preparation and review for each class.					
Grading criteria		Textbooks	References		
Evaluation will be based on reports. Feedback will be given on the submitted reports.		N/A	井出利憲, 田原栄俊著 改訂 細胞培養入門ノート 羊土社		
		Materials	Remarks		
		Handouts will be distributed as needed.	N/A		

Subject	Research Methods in Health Sciences III (Survey)	Prof. Masaharu Kagawa	Compulsory	☒ Selective	1 credit
Course goals and Summary					
In order to conduct a meaningful research, appropriate research design based on research objectives and adequate data management are essential. The goal of this course is to provide the Master of Health Sciences student with an understanding of the procedures for conducting appropriate research and the construction of a basic research design. The acquisition of these research skills is linked to the Diploma Policy.					
This course is designed to provide an overview of research methods used in the health sciences, especially in surveying, through reading and discussion of research papers					
Course Plan					
1) Conducting research (research, misconduct) 2) Deciding on a research theme: literature search and formulation of research hypotheses (research topic, literature search, hypothesis) 3) Cross-sectional and longitudinal (research study design, level of evidence) 4) Preparation and understanding of research methods (data collection, sample size)			5) Statistical analysis (descriptive statistics, inferential statistics) 6) Preparation of the research plan and submission to the Ethical Review Committee (ethics, ethical review) 7) Publication of research outcomes (poster presentation, oral presentation, paper writing)		
Work to be done outside of class (preparation, etc.)					
Since the lecture will be related to actual research, students are expected to prepare their own research and participate in the discussion with their progress. It is desirable that students devote at least twice as many hours as the class hours to learning outside the class.					
Grading criteria		Textbooks	References		
• In-class performance and comments in class (25%) • Report assignments after each lecture (35%) • Final report assignment (40%).		Handouts will be distributed as needed in advance.	N/A		
		Materials	Remarks		
		As a rule, lectures will be given using PowerPoint. Papers will be used in some cases.	The content may be changed depending on the number of students. In some cases, the lecture will be held as an online lecture using Microsoft Teams.		

Subject	Research Methods in Health Sciences IV (Qualitative Research)	Prof. Kouichirou Fukada	Compulsory	☒ Selective	2 credit		
Course goals							
The goal of this course is to master qualitative research methods in social research. Specifically, the goal is for students to acquire research skills and learn writing conventions, and to be able to write research papers, while building on a basic understanding of qualitative research methods. This is related to the acquisition of "research skills in the major field" as stated in the Diploma Policy.							
Course Summary							
The first half of the course will be spent critically reading articles on qualitative research. Students will acquire basic knowledge by reading literature on various qualitative research methods (interview surveys, participant observation, life history/life story, ethnography, ethnomethodology, etc.). In the second half of the course, students will plan and conduct a qualitative survey based on their own research interests. The results of the survey will be reported in class and discussed with the students.							
Course Plan							
<table><tr><td>(1) Invitation to Qualitative Research Understand how qualitative research is required in today's society and what its significance and characteristics are. Multiple qualitative research methods will be reviewed. Keywords: social research, qualitative research, quantitative and qualitative research (2) Epistemology of Qualitative Research Understand what epistemological characteristics qualitative research has, based on its theoretical and historical background. Keywords: phenomenology, understanding others, interpretivism (3) Qualitative Research Methodology Understand the overall picture of how qualitative research is designed and conducted. Keywords: qualitative research questions, qualitative research design, research ethics (4) Qualitative Data Collection To understand and practice methods of collecting data in qualitative research. Keywords: interview, participant observation, field notes</td><td>(5) Analyze qualitative data Understand and practice methods of analyzing and interpreting data in qualitative research. Keywords: semantic interpretation, coding, M-GTA (6) Practice of Qualitative Research Students will participate in hands-on exercises in describing qualitative data and write a paper based on qualitative research. Keywords: transcript, ethnography, thick description (7) Report on Qualitative Research Students will present papers based on qualitative research and review them with each other. Keywords: cultural studies, knowledge of parties, interpersonal assistance and qualitative research</td></tr></table>						(1) Invitation to Qualitative Research Understand how qualitative research is required in today's society and what its significance and characteristics are. Multiple qualitative research methods will be reviewed. Keywords: social research, qualitative research, quantitative and qualitative research (2) Epistemology of Qualitative Research Understand what epistemological characteristics qualitative research has, based on its theoretical and historical background. Keywords: phenomenology, understanding others, interpretivism (3) Qualitative Research Methodology Understand the overall picture of how qualitative research is designed and conducted. Keywords: qualitative research questions, qualitative research design, research ethics (4) Qualitative Data Collection To understand and practice methods of collecting data in qualitative research. Keywords: interview, participant observation, field notes	(5) Analyze qualitative data Understand and practice methods of analyzing and interpreting data in qualitative research. Keywords: semantic interpretation, coding, M-GTA (6) Practice of Qualitative Research Students will participate in hands-on exercises in describing qualitative data and write a paper based on qualitative research. Keywords: transcript, ethnography, thick description (7) Report on Qualitative Research Students will present papers based on qualitative research and review them with each other. Keywords: cultural studies, knowledge of parties, interpersonal assistance and qualitative research
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Work to be done outside of class (preparation, etc.)							
Students are expected to read the assigned literature and prepare a resume prior to class. Discussions will be held in class based on the resumes. In addition, students will collect and analyze data and write a paper based on qualitative research, outside of class time.							
Grading criteria			Textbooks	References			
- In-class performance (60%) - Reports (40%)			Handouts will be distributed as needed.	To be introduced			
			Materials	Remarks			
			To be introduced	N/A			

Subject	Advanced Common Lectures on Research Methods in Health Sciences I ~IV	Prof. Yoshinori Kaneko	Compulsory	☒ Selective	1 credit
Course goals and Summary					
The Graduate School of Kagawa Nutrition University and the the National Institute of Public Health have concluded a partnership agreement on human resource development and cooperation in research. Under this agreement, students are able to take some of the short-term training courses and, as special students, the courses offered in the specialized courses for long-term training by the National Institute of Public Health. By taking courses offered at the National Institute of Public Health, students will acquire skills necessary to play a leading role in the health sciences and social welfare through acquiring a wide range of knowledge and specialized skills in the fields of public health. Students can earn credits for the course of Advanced Common Lectures on Research Methods in Health Sciences I-IV, according to the number of hours for the course taken.					
Course Plan					
For more information on the training programs offered by the National Institute of Public Health, please visit the following website. https://www.niph.go.jp					
Work to be done outside of class (preparation, etc.)					
Read the related materials indicated in class, and prepare for and review the class.					
Grading criteria		Textbooks		References	
Evaluation will be based on a report assigned after the course at the National Institute of Public Health.		Refer to the class outline published by the National Institute of Public Health.		Refer to the class outline published by the National Institute of Public Health.	
		Materials		Remarks	
		Refer to the class outline published by the National Institute of Public Health.		Since the training courses offered by the National Institute of Public Health are originally intended for local government officials, graduate students of the university may not always be able to attend the training courses or class subjects of their choice if they do not meet the course requirements or if there are restrictions on the number of participants.	

Subject	Comprehensive Lectures on Health Sciences	Prof. Yoshinori Kaneko	Compulsory	☒ Selective	4 credit
Course goals and Summary					
Comprehensive Lectures on Health Sciences is a compulsory course for the Health Science Program offered at the first semester of the first year prior to other courses. In principle, all of the full-time faculty members of the Health Science Program will provide 100 minutes lectures in turn. The course aims at providing students with opportunities to further understand the issues addressed in the three areas of health sciences and broaden the perspective to make good use in their own research.					
Course Plan					
1) 2) <u>Prof. Hiromitsu Ogata</u>: Scientific prediction of the effects of risk factors on health and appropriate countermeasures are one of the important issues in health science. Quantitative risk assessment and its application based on scientific data analysis and theory will be explained with specific examples. 3) 4) <u>Prof. Masaharu Kagawa</u>: What is “kin anthropometry”, and the current status and issues of its use in the fields of health and sports medicine and public health. 5) 6) <u>Prof. Yoshinori Kaneko</u>: Development, dissemination, and evaluation of exercise methods and equipment that can be easily implemented by individuals, local governments, and NPOs to promote health, as well as the possibility of using parks as places for health promotion, based on past practical activities and research. 7) 8) <u>Prof. Naoko Igoshi</u>: This lecture will explore the current situation and problems related to medical care through field experience and consider the future image, with the task of pursuing the ideal way of a clinical laboratory technician who has studied nutrition. 9) 10) <u>Prof. Ken-ichi Ishibashi</u>: Immunity is one of the biological systems involved in homeostasis, and is involved in health maintenance and disease development. We will learn about the function of immunity in the onset and prevention of diseases, and introduce the relationship between immunity and health maintenance and medicine. 13) 14) <u>Prof. Toru Akaïke</u>: This section introduces the pathophysiology and molecular mechanisms underlying congenital pediatric diseases, focusing on the physiological characteristics unique to children and the changes in circulatory dynamics from the fetal to the neonatal period. It also explores scientific thinking based on insights into the molecular mechanisms of congenital pediatric diseases and identifies current challenges. 15) 16) <u>Prof. Nobuko Endo</u>: To discuss school health from multiple perspectives, including what school health is, and the changes in school health, students, and social needs. Current issues and future policies and measures related to school health will also be discussed. 17) 18) <u>Prof. Shigeho Tanaka</u>: To summarize the findings on the effects of lifestyle assessment methods such as physical activities, sedentary behaviors, sleep, and meals on various health issues in children, and to learn how to think scientifically and present future issues. 19) 20) <u>Prof. Koichirou Fukada</u>: Starting from the understanding of health as a social phenomenon, students will learn sociological theories and methods to approaching people's health from the perspective of “sociology of medicine and welfare.” 21) 22)23) Survey & Utilization of Literature Survey 24) 25) Presentation Skills Seminar 26) 27) Lecture on the new ethical guidelines and guidelines 28) Summary					
Work to be done outside of class (preparation, etc.)					
Pay attention to news in newspapers and other media so that you can understand various aspects of society in a more scientific and objective manner, be aware of global trends, and try to deepen your understanding of a wide range of fields.					
Grading criteria			Remarks		
Evaluation will be made on the basis of participation in class and submission of reports.			Students must also attend the literature search/utilization and presentation skill improvement seminar, and lectures on new ethical guidelines and other guidelines (research ethics education workshop).		

Subject	Comprehensive Seminars on Health Sciences	Prof. Koichiro Fukada	Compulsory	☒ Selective	2 credit
Course goals and Summary					
This course is offered in the second semester of the first year and the first semester of the second year with the attendance of all relevant faculty members and students. In the Comprehensive Seminars in the second semester of the first year, students shall select literature in the international academic journals relevant to their research themes under the guidance of their supervisors and provide a critical review on the literature. In the School Health Teaching Specialty Course, students are responsible for planning and organizing symposiums and lectures on school health-related topics. The goal is to acquire the planning, execution, and coordination skills to work as a team and solve health issues in an organized manner. The course aims to help students read and fully understand the overseas literature. In the first semester of the second year, students will provide an interim report on their research project and gain advises from faculty members. As this comprehensive seminar will be a valuable opportunity to learn about various fields of health sciences, students are required to participate proactively in the discussion. In the School Health Teaching Specialized Course, students will clarify the abilities (issues) they wish to acquire in this course, make presentations on how to achieve it, and conduct exercises to improve and develop their plans through question-and-answer sessions and discussions.					
Course Plan					
The course will be offered in the second semester of the first year (November–December) and the first semester of the second year (June–July). The schedule will be decided separately, but one to three students will give presentations each day during the 5th and 6th periods on weekdays.					
Work to be done outside of class (preparation, etc.)					
This exercise is a milestone marking the completion of the two-year master's course. Each student is expected to prepare systematically according to the theme of his/her master's thesis so that he/she can give a presentation that aligns with the purpose of the seminar.					
Grading criteria		Textbooks	References		
Students will make one presentation in the second semester of the first year and one in the first semester of the second year, and will be evaluated based on the content of their presentations and their participation in discussions.		N/A	N/A		
		Materials	Remarks		
		Materials will be prepared by students and distributed.	N/A		