

2025 Akita University Faculty of Medicine Syllabus

Category	: 医療・社会・行動科学 II
Course Title	: Environment and Health
Eligible Students	: grade 2 Related Course
Code	: 71583002
Schedule	: week 22 ~ week 25
Credits	: 1

1. Lead Instructor

Kyoko Nomura (Professor, Department of Environmental health science and Public Health, 6086)

2. Instructors

Kyoko Nomura (Professor, Department of Environmental health science and Public Health, 6086)
Manabu Okuyama (Associate Professor, Department of Emergency and Critical Care Medicine, 6185)
Songee Jung (Assistant Professor, Department of Environmental health science and Public Health, 6088)
Teiichiro Yamazaki (Assistant Professor, Department of Environmental health science and Public Health, 3260)
Masahiro Iwakura (Assistant Professor, Department of Environmental health science and Public Health, 7032)
Yoshinobu Ito (Part-time Lecturer, Akita City Public Health Center)
Nobuhiko Nagai (Part-time Lecturer, Department of Health and Welfare, Akita Prefecture)

3. Course Description Outline(Course Objectives)

【ねらい】

臨床現場で必要となる各疾患の病態を習得して診療を実践していくために、社会と健康・疾病との関係を理解し、個体及び集団をとりまく環境諸要因の変化による個人の健康と社会生活への影響について学ぶ。地域医療・地域保健の在り方と現状及び課題を理解し、地域医療に貢献するための能力を獲得する。国際保健の重要性について学ぶ。

また、関連するプロフェッショナリズム、倫理、医療行動科学、医療安全、医療法（制度）、EBM 等について学ぶ。

3-3,3-4,3-6,3-7,5-5

【授業の概要】

社会と健康・疾病との関係や地域医療について理解し、個体及び集団をとりまく環境諸要因の変化による個人の健康と社会生活への影響について学ぶ。

関連するプロフェッショナリズム、医の倫理、医療安全、医療法（制度）、EBM について説明できる。

【Aim】

To understand the relationship between society and health and disease, and to learn about the impact of changes in environmental factors affecting individuals and groups on the health and social life of individuals, in order to master the pathophysiology of each disease and practice medical treatment required in clinical practice. To acquire the ability to contribute to community healthcare by understanding the modality, current situation, and challenges of community healthcare. To learn about the importance of global health.

In addition, students will learn about related topics such as professionalism, ethics, medical behavioral science, medical safety, medical law (system), EBM, etc.

3-3,3-4,3-6,3-7,5-5

【Class Outline】

To gain an understanding of the relationship between society and health/disease and local medical care, and to learn about the impact of changes in environmental factors affecting individuals and groups on the health and social life of individuals.

Students will be able to explain relevant professionalism, medical ethics, medical safety, medical law (system), and EBM.

4. Textbook/Reference Books

NEW 予防医学・公衆衛生学（南江堂、改訂版第4版 2018年）
環境による健康リスク（診断と治療社、2017年）
国民衛生の動向（厚生統計協会、2024/2025）
シンプル衛生公衆衛生学（南江堂、2023年度版）
がん情報サービス、循環器病情報サービス等々
公衆衛生がみえる（MEDIC MEDIA、2024-2025）

5. Assessment

統一試験、形成評価（60%未達の場合は課題を課す）

Comprehensive examination, Formative assessment (additional assignment will be given when a total score of 60% is not achieved)

6. Out of Class Study/Message

最後の日に形成試験を行うので、教科書・配布資料を用いて予習・復習を行うこと。

Since the formative assessment is conducted on the final day, preliminary studies and reviews should be conducted using textbooks and distributed materials.

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
1	9 / 30 (Tue)	1-2	Lecture	Theme: 公衆衛生学概論 (1) Introduction to public health (1) 1. 健康 (健康の定義)、障害と疾病の概念と社会環境 (機能障害、活動制限、参加制約、生活の質 QOL、ノーマライゼーション、バリアフリー、ユニバーサルデザイン等) を説明できる。 2. 社会構造 (家族、コミュニティ、地域社会、国際化) と健康・疾病との関係 (健康の社会的決定要因 (social determinant of health)) を概説できる。 1. Students will be able to explain health (definition of health), concepts of disability and disease and social environment (functional disability, restricted activity, restricted participation, quality of life, normalization, barrier-free, universal design, etc.) 2. Students will be able to outline the relationship between social structure (family, community, internationalization) and health and disease (social determinants of health).	Masahiro Iwakura	基礎棟第 2 講義室
2	9 / 30 (Tue)	3-4	Lecture	Theme: 公衆衛生学概論 (2) Introduction to public health (2) 疫学研究から考える卒後の医学教育と女性医師問題。 Postgraduate medical education and women's doctoral issues based on epidemiological studies.	Kyoko Nomura	基礎棟第 2 講義室
3	9 / 30 (Tue)	5-8	Lecture	Theme: 健康と環境 Environment and Health 過去の公害や食品汚染事件と地球規模の環境問題 (オゾン層破壊、温暖化、その他) をもとに、各々の環境要因が人の健康を阻害したメカニズムと背景要因を列挙して説明できる。 リスクアセスメントの方法とそれが健康障害予防に果たす役割を説明できる。 Students will be able to explain mechanisms and social factors of famous environmental pollution problems and global environmental problems (such as ozone depletion, warming, etc.) Students will be able to explain procedures of risk assessment and its roles in the prevention of health disturbances.	Kyoko Nomura	基礎棟第 2 講義室

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	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
4	9 / 30 (Tue)	9-10	Lecture	Theme: 国際保健 Global Health 1. 世界の保健・医療問題 (母子保健、感染症、非感染性疾患 (non-communicable diseases NCD)、UHC (Universal Health Coverage)、保健システム (医療制度)、保健関連 SDG (Sustainable Development Goals)) を概説できる。 2. 国際保健・医療協力 (国際連合 (United Nations UN)、世界保健機関 (World Health Organization WHO)、国際労働機関 (International Labour Organization ILO)、国連合同エイズ計画 (The Joint United Nations Programme on HIV/AIDS UNAIDS)、世界エイズ・結核・マラリア対策基金 (The Global Fund to Fight AIDS, Tuberculosis and Malaria GF)、GAVI アライアンス (The Global Alliance for Vaccines and Immunization GAVI)、国際協力機構 (Japan International Cooperation Agency JICA)、政府開発援助 (Official Development Assistance ODA)、非政府組織 (Non-Governmental Organization NGO)) を列挙し、概説できる。 1. Global health and medical issues (maternal and child health, infectious diseases, non-communicable diseases NCD), UHC (Universal Health Coverage), health systems (health systems), and health-related SDG (Sustainable Development Goals) can be outlined. 2. United Nations, World Health Organization WHO, International Labor Organization ILO, the Joint United Nations Programme on HIV/AIDS, and the Global Fund to Fight AIDS, Tuberculosis and Malaria GF, and the Global Fund to Fight HIV/AIDS and Malaria GF, The Global Alliance for Vaccines and Immunization (GAVI), Japan International Cooperation Agency (JICA), Official Development Assistance (ODA), and Non-Governmental Organizations (NGOs) are presented in detail.	Kyoko Nomura	基礎棟第 2 講義室
5	10 / 7 (Tue)	1-2	Lecture	Theme: 疫学入門 (1) Introduction to Epidemiology (1) 根拠に基づいた医療 EBM の 5 つのステップを列挙できる。 研究デザイン (観察研究 (記述研究、横断研究、症例対照研究、コホート研究)、介入研究 (臨床研究、ランダム化比較試験)、システマティックレビュー、メタ分析 (メタアナリシス)) を概説できる。 Students will be able to enumerate the five steps of evidence-based medicine (EBM). Students will also be able to outline study design (observational studies (descriptive studies, cross-sectional studies, case-control studies, cohort studies), intervention studies (clinical studies, randomized controlled trials), systematic reviews, and meta-analyses.	Masahiro Iwakura	基礎棟第 2 講義室

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
6	10 / 7 (Tue)	3-4	Lecture	Theme: 疫学入門 (2) Introduction to Epidemiology (2) Patient, population, problem, intervention (exposure), comparison, outcome PICO (PECO) を用いた問題の定式化ができる。 データベースや二次文献からのエビデンス、診療ガイドラインを検索することができる。 得られた情報の批判的吟味ができる。 The problem can be formulated using Patient, Population, Problem, Intervention (exposure), Comparison, and Outcome PICO (PECO). Students will learn to search for evidence from databases and secondary literature and practice guidelines, and learn to critically examine obtained information.	Masahiro Iwakura	基礎棟第 2 講義室
7	10 / 7 (Tue)	5-8	Lecture	Theme: 感染症予防 Prevention of infectious diseases 保健、医療に関する国際的課題を理解し、説明できる。 感染症法・食品衛生法の概要と届出義務を説明できる。 予防接種の意義と現状を説明できる。 Students will understand and explain international health and medical issues, as well as outline the Infectious Diseases Act and the Food Sanitation Act and the obligation to notify. Students will also learn to explain the significance and current status of immunization.	Nobuhiko Nagai	基礎棟第 2 講義室
8	10 / 7 (Tue)	9-10	Lecture	Theme: 社会保障制度 Social security system 日本における社会保障制度を説明できる。 The social security system in Japan can be explained.	Teiichiro Yamazaki	基礎棟第 2 講義室
9	10 / 14 (Tue)	1-4	Lecture	Theme: 災害医療 Disaster medical care 災害医療（災害時保健医療、医療救護班、災害派遣医療チーム DMAT、災害派遣精神医療チーム DPAT、日本医師会災害医療チーム JMAT、災害拠点病院、トリアージ等）を説明できる。 Students will be able to explain disaster medical care (disaster medical care, medical rescue teams, disaster dispatch medical teams DMAT, disaster dispatch psychiatric medical teams DPAT, Japan Medical Association Disaster Medical Team JMAT, disaster center hospitals, triage, etc.)	Manabu Okuyama	基礎棟第 2 講義室

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
10	10 / 14 (Tue)	5-6	Lecture	Theme: 生活環境と健康 Maintenance of living circumstances 仕事と健康、環境と適応、生体環境系、病因と保健行動、環境基準と環境影響評価、公害と環境保全が健康と生活に与える影響を概説できる。 Students will be able to outline how the topics below affect our health and lives: work and health, environment and adaptation, bio-environmental system, pathogen and health/preventive behavior, environmental quality standards and environmental impact assessment, pollution, and environmental preservation.	Teiichiro Yamazaki	基礎棟第 2 講義室
11	10 / 14 (Tue)	7-8	Lecture	Theme: 保険診療について Healthcare services provided by health insurance in Japan 日本における医療保険制度について説明できる。 Students will be able to outline the healthcare service system under public health insurance in Japan.	Teiichiro Yamazaki	基礎棟第 2 講義室
12	10 / 14 (Tue)	9-10	Self learning	Theme: 環境と健康 Environment and health	Songee Jung Teiichiro Yamazaki Masahiro Iwakura	基礎棟第 2 講義室
13	10 / 21 (Tue)	1-2	Lecture	Theme: 秋田県の地域保健行政 Akita Prefecture Regional Health Administration 1. 地域社会（離島・へき地を含む）における医療の状況、医師の偏在（地域、診療科及び臨床・非臨床）の現状を概説できる。 2. 地域における保健（母子保健、学校保健、成人・高齢者保健、地域保健、精神保健）・医療・福祉・介護の分野間及び多職種間（行政を含む）の連携の必要性を説明できる。 1. This topic provides an overview of the state of health-care in local communities (including remote islands and remote areas) and of the uneven distribution of doctors (regional, clinical and non-clinical). 2. Students will be able to explain the necessity of cooperation between health (maternal and child health, school health, adult and elderly health, community health, mental health), medical care, welfare, and long-term care, as well as between different occupations (including government).	Yoshinobu Ito	基礎棟第 2 講義室

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
14	10 / 21 (Tue)	3-6	Lecture	Theme: 生物統計入門 Introduction to biostatistics 1. データの記述と要約（記述統計を含む）ができる。 2. 主要な確率分布を説明できる。 3. 正規分布の母平均の信頼区間を計算できる。 4. 基本的な仮説検定の構造を説明できる。 1. Description and summary of data (including descriptive statistics) can be explained. 2. The primary probability distribution can be explained. 3. The confidence interval of the population mean of the normal distribution can be calculated. 4. The structure of the basic hypothesis test can be explained.	Kyoko Nomura	基礎棟第 2 講義室
15	10 / 21 (Tue)	7-8	Self learning	Theme: 環境と健康 Environment and health	Songee Jung Teiichiro Yamazaki Masahiro Iwakura	基礎棟第 2 講義室
16	10 / 21 (Tue)	9-10	Formative assesment	Theme: 終了時客観試験 Objective test at the end	Kyoko Nomura Songee Jung Teiichiro Yamazaki Masahiro Iwakura	基礎棟第 2 講義室