科目ナンバリング	U-LAS40 10010 LE26				
授業科目名<英訳>	Biology and Sociology of Chronic Diseases-E2 Biology and Sociology of Chronic Diseases-E2	担当者所属職名・氏名	医学研究科　助教　AKHMETZIANOVA, Renata		
群	健康・スポーツ科目群	分野(分類)	健康・スポーツ科学(基礎)	使用言語	英語
旧群		単位数	2単位	週コマ数	1コマ	授業形態	講義（対面授業科目）
開講年度・開講期	2026・前期	曜時限	木3	配当学年	全回生	対象学生	全学向

[授業の概要・目的]

Chronic diseases are among the greatest health challenges of our time, impacting millions of lives worldwide. Globally, approximately 75% of all deaths are attributable to chronic diseases, affecting people across all ages, regions, and socioeconomic backgrounds.
Major chronic diseases include cardiovascular disease, cancer, chronic respiratory diseases, and diabetes, arising from the interaction of genetic, physiological, environmental, and behavioral risk factors. To tackle chronic diseases effectively, the integration of both biological and social perspectives is required.
In this course, we will explore the biological mechanisms underlying major chronic conditions while also examining the lifestyle, environmental, and critical social determinants that influence health outcomes. In addition, we will analyze global strategies and national policies aimed at preventing and managing chronic diseases at both individual and population levels.
Through real-world case studies, interactive exercises, and collaborative discussions, students will gain valuable knowledge and evidence-based strategies to help reduce the burden of chronic diseases towards achieving the highest attainable standard of health and well-being.

[到達目標]

1. Understand the biology and mechanisms of development of chronic diseases
2. Define key social and environmental risk factors of chronic disease development and progression
3. Identify cost-effective and evidence-based interventions for management and prevention of chronic diseases
4. Develop critical thinking skills for evaluating scientific evidence and making informed decisions

[授業計画と内容]

Week 1: Course Introduction: Global Impact of Chronic Diseases
Week 2-4: Biology of Major Chronic Disease Groups
- Cardiovascular diseases and diabetes
- Cancer and chronic respiratory diseases
- Neurological disorders and mental health disorders

Week 5-7: Non-Modifiable Risk Factors of Chronic Diseases
- Genetic factors: family history and inherited predispositions
- Physiological factors: sex and ethnicity
- Physiological factor: ageing. Healthcare strategies for an ageing population in Japan and worldwide

Week 8-11: Modifiable Risk Factors of Chronic Diseases
- Physical activity, diet, and lifestyle diseases
- Stress as a risk factor. Cognitive behavioral strategies for coping with stress
- Environmental risk factors: air pollution and radiation
- Smoking and alcohol: risk factors and health outcomes

Week 12-14: Chronic Disease Prevention Programs
- Understanding levels of prevention for chronic diseases

Biology and Sociology of Chronic Diseases-E2(2)へ続く↓↓↓

Biology and Sociology of Chronic Diseases-E2(2)

・Health check-up programs in Japan and around the world
・Cost-effective and evidence-based interventions for prevention
Week 15: Feedback

Changes in order and/or content might occur

[履修要件]

Open to students from all majors. This course offers insights into the biological and social factors that contribute to chronic disease development, as well as effective strategies and practical advice to prevent them and reduce their impact.

[成績評価の方法・観点]

Students are expected to complete regular assignments (quizzes and homework assessments). Evaluation will be based on the following criteria:

Attendance and active participation: 30%
Assignments: 30%
Final Self-Reflection Report: 40%

[教科書]

Runge, M. S., & Greganti, M. A. 『Netter’s Internal Medicine (2nd ed.)』 （Saunders/Elsevier, 2009） ISBN:978-1416044178

[参考書等]

（参考書）
『Tackling NCDs: best buys and other recommended interventions for the prevention and control of noncommunicable diseases, second edition.』 （Geneva: World Health Organization; 2024） （Licence: CC BY-NC-SA 3.0 IGO）
Additional literature and references will be introduced during the lectures

[授業外学修（予習・復習）等]

Self-study outside of class is key to understanding and remembering course material. Reviewing lecture slides, exploring additional readings, completing quizzes, and homework will help reinforce learning in class. Active engagement with the course material enhances understanding, and the knowledge acquired can be applied to both everyday life and future studies. Lecture slides will be provided.

[その他（オフィスアワー等）]

If you have any questions, please feel free to email me or schedule a time to meet in person.

[主要授業科目（学部・学科名）]