1226241 Healthcare Research and Innovations in Japan and India

1.0 Credits, 1 - 6 Year, by arrangement
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Course Overview

Despite significant advances in science and technology, many unmet medical needs still exist worldwide. This course compares healthcare systems and practices in Japan and India, which differ in social structure and cultural background. Topics include healthcare delivery, public health, infectious disease control, and advanced medical technologies. Through these lectures, students will develop a comparative perspective on healthcare and acquire the ability to analyze healthcare challenges from multiple angles.

Remarks

Pre-registration required (Capacity: 100 students), Further details will be announced via website (https://www.unmet-medical-needs.edu.tsukuba.ac.jp/)
Lectures are conducted in English.
Online(Asynchronous)
Further details will be provided via JV-Campus

Course Type

lectures

Subject Category,Level,Division

Relation to Degree Program Competences

Course Objectives(Learning Outcomes)

By the end of this course, students will be able to:
* Explain how healthcare challenges are influenced not only by medical factors but also by healthcare systems, social and cultural contexts, and the development and implementation of technologies.
* Compare healthcare systems and approaches to healthcare challenges in Japan and India, and develop perspectives that extend beyond a single country or discipline.
* Integrate knowledge across multiple disciplines, including medicine, medical science, engineering, and public health, to analyze healthcare challenges from the perspective of unmet medical needs.
* Identify and analyze problems in healthcare and related fields, taking into consideration technological, social, and global contexts.

Course Keywords

Unmet medical needs, International comparison of healthcare, healthcare systems, global health, medical technology and innovation

Class Schedule

- Session 1: Orientation & Unmet Medical Needs
  Introduction to the course structure and objectives, with an overview of unmet medical needs and key healthcare challenges addressed throughout the course.
- Session 2: Healthcare Systems in Japan and India
  Comparison of healthcare systems in Japan and India, including universal health coverage, the evolution and structure of healthcare systems, and approaches to healthcare delivery.
- Session 3: Global Infectious Disease
  Exploration of global infectious disease challenges, including antimicrobial resistance, zoonotic diseases, and advances in infectious disease diagnosis and surveillance.
- Session 4: Medical Technology & Innovation
  Examination of emerging medical technologies and innovations, including artificial intelligence in surgery, surgical decision support, and advances in biomechanics and orthopedic research.
- Session 5: Society, Aging & Healthcare
  Examination of how demographic and epidemiological changes influence healthcare needs, with a focus on population aging, long-term care, and evolving approaches to care for older adults.
- Session 6: Human Health & Healthcare Innovation
  Exploration of diverse factors influencing human health and healthcare innovation, including epigenetics, mental health, and context-aware approaches to identifying healthcare needs and developing appropriate solutions.

Course Prerequisites

None

Grading Philosophy

・ Completion of lecture-based exercises and quizzes and participation and engagement via online forum.

Course Hours Breakdown and Out-of-Class Learning

・ Review of lecture videos: 60%
・ Completion of lecture-based exercises and quizzes: 20%
・ Participation in online discussion board activities: 20%

Textbooks, References,and Supplementary Materials

・ Lecture videos and slides prepared by instructors (JV-Campus)
・ Supplementary materials including references, data, and relevant literature
・ No specific textbook required

Office Hours and Contact Information

Inter-University Exchange Project (Japan–India) Office, Tsukuba
interuniv-india-jp@un.tsukuba.ac.jp

Other(Behavioral expectations and points to note for students during coursework)

Course conducted in English

Relation to Other Courses

Teaching Fellow and/or Teaching Assistant