

**Sub-course: Exploring and Creating Full and Healthy Human Life in Modern Society**

Course title	[Code]	(Credits)
Undergraduate students: Summer Program in English II	[25N3049]	(2)
Graduate students: Special Lectures in Humanities and Sciences II	[25S0152]	(2)

**1. Description**

This course is a collaborative program between the three departments of the Faculty of "Human Life and Environmental Science" and the two departments of the newly established Faculty of "Transdisciplinary Engineering" (as of April 2024). The faculty of "Human Life and Environmental Science" is characterized by its focus on the problems that occur in our daily lives in relation to the environment and society, from the perspective of ordinary people, to explore better ways of living. Furthermore, the faculty of "Transdisciplinary Engineering" is to create new meanings and values for the future environment, society, and culture while utilizing the knowledge of data science. Especially in modern society, while the development of science and technology and globalization have made our lives more convenient, we, as ordinary people, are required to adapt to various changes that affect our lives, such as environmental problems and social conditions. The creation of a future society will require the realization of a sustainable society that takes into account the diversity of human. In this course, we aim to explore and create fuller and healthier human life from a scientific perspective on themes related to our life in modern society, crossing the boundaries between the humanities and the sciences.

**2. Teaching Day and Time**

Day	Time	Lecturer	Topic/Contents	Place
July 22 Tue	6:10pm-6:40pm	Mebuki Sunagawa	Course Orientation	Plaza 3F Seminar room
July 23 Wed	9:30am-11:00am 11:10am-12:40am	Takahisa Miyauchi	Okinawa's graves and ancestral worship	Same as above
July 24 Thu	9:30am-11:00am 11:10am-12:40am	Mika Omori	Sociocultural Influences on Psychological Health (1): Psychology of Health Eating	Same as above
July 25 Fri	9:30am-11:00am 11:10am-12:40am	Mika Omori	Sociocultural Influences on Psychological Health (2): Body Image	Same as above
July 26 Sat	9:30am-11:00am 11:10am-12:40am	Tripette Julien	Promoting active lifestyles in East Asian societies	Same as above
July 29 Tue	9:30am-11:00am 11:10am-12:40am	Nathanael Aubert-Kato	Machine learning for healthcare and wellbeing	Same as above
July 30 Wed	1:20 pm-TBA	Mebuki Sunagawa	Field trip	To be advised

July 31 Thu	9:30am-11:00am 11:10am-12:40am	Makoto Shimizu	Nutrition and life science	Plaza 3F Seminar room
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### 3. Class Contents:

#### **Topic: Okinawa's graves and ancestral worship**

Dr. Takahisa Miyauchi

Abstract: Okinawa's graves are large tombs called hexagram graves. We will introduce them while comparing graves in mainland Japan with those in Okinawa. We will also introduce the "bone washing ceremony" in Itoman City. We will examine the characteristics of ancestral worship in Okinawa through the ancestral worship ceremony called "Seimeisai Festival" held in Naha City and the ancestral worship ceremony called "16th Day Festival" held in Ishigaki City.

#### **Topic: Sociocultural Influences on Psychological Health (1): Psychology of Health Eating**

Dr. Mika Omori

Abstract: We all enjoy foods, home-style foods at home, casual snacks at parties with friends, local foods while traveling, and culinary delights at Michelin starred restaurants. Many people, however, struggle with foods and eating, i.e. overeating, obsession with foods, and extreme dieting. The class will focus on psychosocial factors involved in eating behaviors and introduce programs to facilitate healthy eating from a perspective of health psychology. An additional goal of this section is to discuss the importance of integrating cultural/diversity issues into understanding human behaviors in various settings. These aims will be accomplished through class discussions and group exercises as well as lecturing. The class will be a great opportunity to share your thoughts with others and to get to know each other. Active participation is strongly encouraged.

#### **Topic: Sociocultural Influences on Psychological Health (2): Body Image**

Dr. Mika Omori

Abstract: There is no question at all about the fact that psychological health is a key to make our lives satisfying and productive. This section invites participants to gain better understandings on psychological health/distress and sociocultural influences on the development and maintenance of psychological problems. In particular, the class introduces issues of body image in conjunction with pathological eating behaviors of young women. Other forms of psychological problems will be also introduced in conjunction with sociocultural aspects of psychological problems. An additional goal of this section is to discuss the importance of integrating cultural/diversity issues into understanding human behaviors in various settings. These aims will be accomplished through class discussions and group exercises as well as lecturing. The class will be a great opportunity to share your thoughts with others and to get to know each other. Active participation is strongly encouraged.

#### **Topic: Promoting active lifestyles in East Asian societies**

Dr. Tripette Julien

Abstract: Active lifestyles are well known for their significant health benefits. In 2010, the World Health Organization (WHO) released its Global Recommendations on Physical Activity for Health, urging policymakers to adapt these guidelines to the specific needs of their populations. In response, Japan's Ministry of Health, Labour and Welfare introduced the Active-Guide in 2013, the country's official physical activity (PA) guidelines for health promotion. This course will explore how the Active-Guide incorporates innovative strategies to encourage active lifestyles. We will also examine the key challenges policymakers in East Asian countries face in promoting physical activity and public health. Additionally, the course will provide an overview of current methods for monitoring physical activity, including advancements in wearable technology. Student evaluation will be based on attendance and a concise 1- to 2-page mini-report summarizing key insights from the course.

**Topic: Machine learning for healthcare and wellbeing**

Dr. Nathanael Aubert-Kato

Abstract: Over the past few decades, we have seen an explosion in the generation of health-related data, including Electronic Health Records (EHRs), imaging, and wearable sensor data. Meanwhile, machine-learning (ML) approaches have provided the means to deal with such large amounts of information, with potential applications to medical decisions and health promotion. This lecture provides an overview of the impact of ML in health-related fields and its applications, with concrete examples taken from wearable data. The lecture will also discuss potential future aspects, such as the use of Large Language Models (LLMs), as well as ethical concerns.

**Topic: Nutrition and life science**

Dr. Makoto Shimizu

Abstract: Nutrition plays a crucial role in human health, and dietary habits vary across the world. A balanced diet provides essential nutrients that support physical and mental well-being, while malnutrition may lead to chronic diseases or life-style related diseases such as obesity and diabetes. Advances in life sciences have deepened our understanding of how diet influences metabolism and disease development. Promoting healthy eating habits through education and policy interventions can help reduce the global burden of life-style related diseases. By integrating nutritional science with medical research, we can develop effective strategies to improve public health and enhance quality of life. In this lecture, we will discuss the impact of nutrition and life sciences on past, present, and future.

4. Evaluation

Class attendance (50%)

Reaction paper and/or oral presentation or practical exercise completed during the class (50%).