

Programme for Developing Human Resource to Contribute to SDGs by Merging African Potential and Japanese Scientific Technology



Student Recruitment for
The Compulsory Intensive Course
2022 of the above Programme



- **University of Ghana** (Ghana)
- **Addis Ababa University** (Ethiopia)
- **Jomo Kenyatta University of Agriculture and Technology** (Kenya)
- **Meru University of Science and Technology** (Kenya)
- **University of Dar es Salaam** (Tanzania)
- **Nelson Mandela African Institution of Science and Technology** (Tanzania)
- **Utsunomiya University** (Japan)


Introduction

The coronavirus (COVID-19) pandemic has impacted on the global economy, and the higher education, especially studying abroad, is significantly affected. To overcome the pandemic and advance the higher education, universities have adopted online learning and started to accelerate digitization.




On the other hand, extensive and strong international cooperation is needed to achieve the United Nations-led SDGs (Sustainable Development Goals) toward 2030.

- This program aims to develop personnel who can contribute to joint activities between Africa and Japan by understanding the potential of local communities and achieving sustainable development based on the social structure. Therefore, in anticipation of the post-corona era, six African universities and Utsunomiya University in Japan will jointly offer the web online course related to Africa, SDGs, and Science.
- The course includes sixteen lectures which will be taken on the web from 1st June to 15th July. The content will be the basis for mutual study abroad between African universities and Utsunomiya University, and the following lectures will be offered.
- Following the compulsory intensive course, this program will hold the UU-A International Symposium Series and the Student Summit 2023. **Let's join us!!**



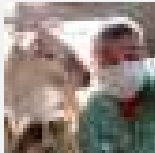

Introduction of Lecturers and Topics

SDGs	Title and outline of the lecture	Lecturer	Photo	University	E-mail address
		<p>Prof. Shinso Yokota Team Leader of UU-A, Professor of Agriculture</p>			yokotas@cc.utsunomiya-u.ac.jp
	<p>June 1. Introduction and C-learning tutorial</p> <p>June. Meet your lecturers</p> <p>July 15. Reflection and wrap-up</p>	<p>Dr. Shunsuke Kurihara Associate Professor of International Studies</p>		Utsunomiya University (Japan)	shunsuke@cc.utsunomiya-u.ac.jp
		<p>Prof. Hiroyuki Yumoto Professor, Center for International Exchange</p>			yumoto@cc.utsunomiya-u.ac.jp
SDG 1, 2, 3, 9, 13, 15	<p>Beekeeping and its value added products</p> <p>Honeybees are kept for their products and service. Primarily honeybees produce honey, beeswax, royal jelly, bee propolis, bee venom, bee pollen and brood. Honeybees are efficient pollinators. Pollination leads to formation of seeds and fruits which is important for life continuity, food security and biodiversity. Some primary products produced honey and royal jelly are used in their raw state. Importantly, Additionally, primary products are used as ingredients to manufacture other products their addition of which enhances their value and quality. All products are used in medicine, cosmetics and food industry.</p>	<p>Dr. Mkabwa LK Manoko Department of Crop Sciences and Beekeeping Technology, College of Agricultural Sciences and Food Technology (CoAF)</p>		University of Dar es Salaam (Tanzania)	mlkmanoko@gmail.com
SDG 1, 2, 3	<p>Contribution of agricultural sector in addressing poverty and food insecurity in Africa</p> <p>The majority of the world's poor live in South Asia, East Asia and Africa with approximately 25% of the below \$1.9/day poor in sub Saharan Africa. While both the extent and severity of poverty and food insecurity have been decreasing in South and East Asia, they have both been increasing in Africa. The United Nations endorsed the Second International Conference on Nutrition (ICN2) Framework for Action and declared 2016 to 2025 a Decade of Action on Nutrition to reduce hunger and malnutrition and meet the SDGs. The Decade of Action aims to provide an umbrella for a wide group of actors to work together to make progress toward SDGs 1 and 2 to end poverty, hunger and malnutrition in all its forms. While agriculture is an important sector in addressing poverty and food insecurity, low productivity and climate change have reduced its potential. This lecture discusses the opportunities and challenges for agriculture in to deliver SDGs 1, 2 and 13 on ending poverty, food security and adaptation to climate change in Africa.</p>	<p>Dr. Robert Mbeche Senior Lecturer Department of Agricultural and Resource Economics</p>		Jomo Kenyatta University of Agriculture and Technology (Kenya)	rmbeche@jkuat.ac.ke
SDG 2	<p>Ecological Pests Management</p> <p>Pest management in Agriculture is a critical issue that compromises crops yield and overall food security. Pest management practices need to critically observe ecosystems functioning and human health and wellbeing. Ecological pest management is one that ensures safety, enhances ecosystem services necessary for natural pest regulation and sustainable food production. This lecture gives an overview of ecological pest management, ecosystem services and their roles in pest management and examples of sustainable pest management approaches. Specifically the lecture will cover biodiversity and its contribution to pest management, conservation biological control, botanical pesticides and its potentials in sustainable pest management.</p>	<p>Dr Angela Gerald Mkindi Agro ecology</p>		Nelson Mandela African Institution of Science and Technology (Tanzania)	angela.mkindi@nm-aist.ac.tz

Introduction of Lecturers and Topics

SDG 2, 3 (1, 15, 17)	<p>Potentials of African indigenous knowledge and resources for SDGs: A solution for hunger and improved health?</p> <p>The lecture indicates the importance of African indigenous knowledge and resources as a realistic and essential way to solve SDGs especially related to hunger and health. The lecture introduces a case study from Tanzania, and how edible wild plants can contribute to improved nutrition and health of the rural people. It also invites students to look around in their own environment how the local resources can be utilized to achieve SDGs.</p>	<p>Prof. Kumiko Sakamoto Subleader of UU-A, Professor of International Studies</p>		Utsunomiya University (Japan)	ksaka@cc.utsunomiya-u.ac.jp
SDG 2, 3, 4	<p>Nutrition and sustainable food supply</p> <p>Obesity and non-communicable diseases are worldwide issue. The double burden of overnutrition and malnutrition are observed both within a family and many nations. On the other hand, we are facing to meet the increasing demand of food supply. The lecture starts with the history of food and nutrition and learn about some traditional foods, referring African, South American, and Japanese foods. Students are supposed to think how to achieve a healthy diet and sustainable food supply.</p>	<p>Dr. Yuko Caballero Assistant Professor of Cooperative Faculty of Education</p>		Utsunomiya University (Japan)	yukocaballero@cc.utsunomiya-u.ac.jp
SDG 3, 5	<p>Gender, Health and Cultures in Africa</p> <p>Gender, Health and Cultures in Africa interrogates, analyses, and appreciates how both biology and socio-cultural factors create differential pathways for experiencing health and illness for males and females in African societies. The course also examines the influence of gender relations, masculinities and femininities on expressions, interpretation and general experiences of health and illness, and their peculiarities in African societies. The course further demonstrates how such constructions correspond or disagree with biological facts of health and disease. The course involves the conduct of a gender appraisal of specific policies, practices and responses to health and illness in African societies, identifying gaps and opportunities for intervention.</p>	<p>Dr. Deborah Atobrah Director, Center for Gender Studies and Advocacy</p>		University of Ghana (Ghana)	datobrah@ug.edu.gh
SDG 4	<p>Education in Ethiopia and implications to meeting the SGD goal 4</p> <p>SDG is a global goal while educational policies and practices are country based. All the countries that pledged to the declared sustainable goals are not in the same level to ensure the SDGs are met. Ethiopia is a developing nation that strives to ensure quality education and meet the SDGs, though, the efforts that have been undertaken and the current reform initiatives seek to be explored. This activity would indicate the implications of the ongoing education system and reform initiatives to meet the SDG-4 in general and the targets under it in particular</p>	<p>Dr. Kassa Michael Associate Professor of Mathematics Education</p>		Addis Ababa University (Ethiopia)	ftkassa2010@yahoo.com raskassamichael@gmail.com
SDG 6	<p>Status and Level of implementation of the 6th Sustainable Development Goal (SDG) in Kenya: In reference to Sanitation</p> <p>More than half of the population in low income countries significantly suffer from several preventable diseases related to poor sanitation and unsafe water. Children and inhabitants of under-privileged communities are the most affected groups with far reaching consequences of poor sanitation. Kenya like many Africa counties missed sanitation MDG targets by 2015 and even with formulation of SDGs, that universally shared mission is likely to be missed. In Kenya, one out of 3 persons do not have improved sanitation and open defecation is largely practiced in several rural areas. The 6th SDG aims at ensuring availability and sustainable management of safe water and sanitation for all. Unfortunately lack of concerted efforts in the implementation of improved practices on sanitation as evidenced in some rural areas of Kenya may lead to missed targets of SDG objective 6. The discussion will look at the status and simple approaches that can be adapted for adequate implementation of Sanitation in Kenya to exclude pathogens that cause various diseases from the vulnerable communities and environments.</p>	<p>Prof. Eric M. Muchiri Associate Professor of Public Health</p>		Meru University of Science and Technology (Kenya)	emuchiri@must.ac.ke ericmmuchiri@gmail.com
SDG 9, 11	<p>Seismic damage of bridges subjected to strong ground motions</p> <p>Recent earthquakes reveal the significant cost of damage after the events; for example, the Japanese government estimated that the amount of damage after the 2011 Tohoku Earthquake and the 2016 Kumamoto Earthquake was 16.9 trillion yen (160 billion US dollars) and 4.6 trillion yen (44 billion US dollars), respectively. This lecture explores the seismic damage of some of the bridges in Japan subjected to strong ground motions. This also presents the restoration and reconstruction of these bridges, as well as the lessons learned and possible changes in future bridge engineering practice.</p>	<p>Dr. Shuichi Fujikura Associate Professor of Regional Design</p>		Utsunomiya University (Japan)	shuichi.fujikura@cc.utsunomiya-u.ac.jp

Introduction of Lecturers and Topics (cont.)

SDG 9	<p>Optics and Light : Application for industry</p> <p>Sunlight is essential for life-sustaining on earth. Today in the 21st century, optical technology has become an integral part of our lives. It is also one of the important basic technologies that support major Japanese industries. Its applications point out automated driving, virtual reality (VR), augmented reality(AR), display, 3D printer, robot vision, astronomy, environmental sensing, bio-medical imaging and nanotechnology. This lecture starts what light is then introduces how useful optics for industrial products with demonstrations.</p>	<p>Prof. Yukitoshi Otani Professor of Engineering</p>		<p>Utsunomiya University (Japan)</p>	<p>otani@cc.utsunomiya-u.ac.jp</p>
SDG 10, 17	<p>Seeking Conceptual Universals – Viewing Japanese Figurative and "Untranslatable" Expressions from African Perspectives</p> <p>This on-demand class is for us English-speaking participants an experiment to rethink and examine how much our languages would be helpful to share concepts. We have not a few expressions which seem impossible to translate into another language because of cultural embeddedness. However, we would eventually like to believe that we understand each other based on common humanity. The lecturer, as well as Japanese participants, will bring those Japanese expressions and try to make them make sense. It will be successful if it could be understandable at least, and if it promotes mutual curiosity and understanding among all the participants.</p>	<p>Prof. Kazuhiko Yoshida Professor of International Studies</p>		<p>Utsunomiya University (Japan)</p>	<p>ysd@cc.utsunomiya-u.ac.jp</p>
SDG 12, 15	<p>Behavior and Management of Farm Animals</p> <p>Farm animals, such as cattle, buffalos, sheep, goats, pigs and chickens provide us the various kinds of products. They are the valuable agricultural resources, but they are mammals (or birds) like us, and they have the similar central nervous systems and endocrine systems with us, so that there might be some similarities in feeling and emotions among farm animals and us. This lecture introduces the behavioral features of some farm animals, and the effects of management condition on them. In particular, this lecture introduces the behavioral features during the road transportation in goats, and these uses for the markers for stress.</p>	<p>Dr. Masato Aoyama Associate Professor of Agriculture</p>		<p>Utsunomiya University (Japan)</p>	<p>aoyamam@cc.utsunomiya-u.ac.jp</p>
SDG 12, 15	<p>The limits of consumer practice to achieve SDGs: Contradictions for chicken meat in Japan</p> <p>Despite scientific and technological advances, people are encountering ever greater challenges in figuring out what they should eat. In this lecture, I identify three contradictions that emerge for chicken meat in Japan. Widely held notions of chicken meat in Japan portray imported chicken as bad and domestic chicken as good. This presentation unpacks how Japanese consumers perceive chicken meat and how these popular perceptions diverge from ideas of ethical food prevalent in the global North. Ideas such as ethical consumption are gaining greater recognition, but an overemphasis on consumer practice hazards exacerbating other intractable problems.</p>	<p>Dr. Benjamin Schragger Assistant Professor of Agriculture</p>		<p>Utsunomiya University (Japan)</p>	<p>benjamin@cc.utsunomiya-u.ac.jp</p>

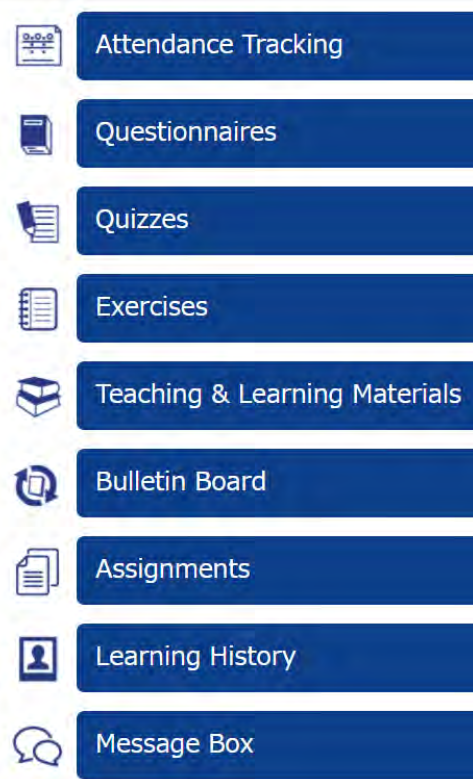


Details of the course

- ✓ **Sixteen web lectures:** In this course, 16 professors from 7 universities will give sixteen lectures. This is an unprecedented international cooperation in the new digital age, so please look forward to it.
- ✓ **Course Duration:** 1st June – 15th July, 2022
The first lecture will be held on **1st June** (Wed), the mid-term lecture on the end of June, and the final on **15th July** (Fri) on **real-time**. The other 13 lectures are offered on-demand, so you can take them any time between 1st June to 15th July.
- ✓ **C-learning:** In the course, we will use the application named "C-learning". Only students who have applied for this course will be informed of the ID and password to access "C-learning". Instructions on how to use "C-learning" will be emailed to students who have registered. So, students who want to attend the course must apply to the person in charge at their university.
- ✓ **Application:** Please inform **the person in charge at home university** (see the final page "Contacts") with your Name, Student ID number, Master's Program Major and email address.
- ✓ **Application deadline: 30th April.** The lecture materials will be upload to "C-learning" in May, and the ID and password will be notified to the registered students at mid-May.

Details of the course (cont.)

✓ **C-learning:** In C-learning system, students can find several boxes as shown on the right. In “Teaching & Learning Materials” there are several materials such as videos, PDF files and so on for 16 lectures. Students take 13 lectures at their own convenience from 1st June to 15th July and then answer “Quizzes” or write a report for “Assignments” .



- ✓ **Credits:** Equivalent at each home university
- ✓ **Students:** Master course students from **any field** are welcome.
- ✓ **Capacity:** Maximum 40 or less per university. Minimum 7 masters students.
- ✓ **Visit and study in Utsunomiya:** It is very difficult to say when we can start to exchange students to study abroad due to the situation of COVID-19, but each university should select students who will be invited to Utsunomiya in 2022-2023. One student will be able to study in Utsunomiya each year, either for a long period (three months or longer) or for a short period (less than one month).

Contacts for each African university

- **University of Ghana (Ghana)**
Dr. Deborah Atobrah
Tel: +233(0)557109950 / +233 277489990
E-mail: datobrah@ug.edu.gh
- **Addis Ababa University (Ethiopia)**
Dr. Bezawork Afework
Tel: +251 911 110990
E-mail: bezawork.afework@aau.edu.et
- **Jomo Kenyatta University of Agriculture and Technology (Kenya)**
Ms. Naomi C. Ketter
Tel: +254 727997459
E-mail: coanrestudentexchange@jkuat.ac.ke
- **Meru University of Science and Technology (Kenya)**
Dr. Cynthia Mugo
Tel: +254 706755928
E-mail: cmugo@must.ac.ke
- **University of Dar es Salaam (Tanzania)**
Dr. Lilian Daniel Kaale
Tel: +255 713133030
E-mail: elykaale@gmail.com
- **Nelson Mandela African Institution of Science and Technology (Tanzania)**
Prof. Linus Munishi
Tel: +255 768171890
E-mail: linus.munishi@nm-aist.ac.tz