International Veterinary and Conservation Medicine Education Program (IVCMEP)

to foster the next generation of human resources to bridge between Africa and Japan

Syllabus 2023 for ONLINE students

- ☐ Successfully completing a *class*, a *credit* is given by Hokkaido University (HU).
- ☐ All the classes are conducted in English.
- ☐ With no less than three *credits*, certificate for IVCMEP2023 will be given by HU. This will certify the student's competency while giving priority to participate in the proceeding IVCMEP conducted on-site in Zambia .
  1) One *credit* for "Interdisciplinary and Intercultural Studies"
     - Watching lecture video series of "Interdisciplinary and Intercultural Studies" listed below.
     - Participating online interactive sessions with students and professors at Hokkaido University

       [Tentative schedule]
       - June: JICA special lecture on international cooperation
       - July: Interactive Session with students from University of Zambia (UNZA).
       - September: Interactive discussion session with professors at HU
       - September : Travel Report by HU students
  2) No less than two *credits* for "Conservation Medicine I&II"
     - Select no less than two *classes* from the list below
     - Each class consists of 8 subjects (or less, yet equivalent to 8 subjects).
     - Those classes are also provided face-to-face at Hokkaido University from Jul. 18-Aug. 24. You can also join those classes in person. For details, contacts us via email below.
- ☐ The program starts from 1st July 2023 and ends on 31st October 2023.

【Outline of each class】

1) Interdisciplinary and Intercultural Studies [one credit]

NOTE: All IVCMEP students are required to watch following lectures

Lectures are given by researchers in Hokkaido Universities and other partner institutions in Japan and African countries.

Class		Subject
1.	Interdisciplinary and Intercultural Studies	1) Japanese Language and Culture (optional for HU students)
		2) One-Health and SDGs
		3) Sustainable Development in Japan and African countries
		4) Recent Topics in Veterinary and Conservation Medicine in Japan
		5) Training on Team Working
		6) Ethics in Interdisciplinary Research
		7) Medical Anthropology
		8) Human Resources for Sustainable Development

2) Conservation Medicine I&II [two credits]

NOTE: Select no less than two *classes* from the list below .

Each class consists of 8 subjects (or less, yet equivalent to 8 subjects).

**	: Equivalent to 2 subjects
***	: Equivalent to 3 subjects
****	: Equivalent to 4 subjects

Class		Subject
1.	CHCE-I: Field Toxicology & Risk Analysis	1) Guidance for Chemical Hazard
		2) Environmental Toxicology-1 Trace Elements
		3) Environmental Toxicology-2 Food Safety
		4) Veterinary Forensics**
		5) Risk Analysis***
2.	CHCE-II: Chemical Analyses	1) Introduction on environmental chemical analysis**
		2) Heavy Metal (including Mercury) Poisoning
		3) Pesticide Pollution and Health
		4) Endocrine Disrupting Chemicals in Wildlife and Human

Class		Subject
		5) Lecture on environmental health and environmental monitoring
		6) Lecture on data analysis of LC-MS/MS**
3.	CHCE III: Basic Conservation Medicine	1) Pharmacology **
		2) Wildlife Toxicology / Ecotoxicology**
		3) Toxicologic Pathology**
		4) Immunotoxicology **
4.	CHCE-IV: Environmental Remediation and Diagnostic Techniques	1) Remote sensing-1 **
		2) Remote sensing-2 **
		3) Environmental Remediation**
		4) Environmental Remediation in Marine Environment**
5.	CHCE-V: GIS and satellite remote sensing	1) Basic and practices of GIS -1**
		2) Basic and practices of GIS -2***
		3) Basic and practices of GIS -3***
6.	CHCE-VI: Bioinformatics	1) Basic and Multivariate Analysis: Basics and Practices ****
		2) Computational Toxicology Basic of Molecular Docking ****
7.	Mechanism, Assessment and Remediation of Environmental Pollution	1) Understanding Plants and Soils - in relation to environmental pollutions **
		2) Impact Evaluation of Development Program **
		3) Environmental Radioactivity and health hazard
		4) Health Science
		5) Remediation of abandoned mine sites **
8.	Advanced and Comprehensive Studies on Zoonosis Control	1) Overview from animal side (host defense)
		2) Medical Entomology
		3) Control of CSF/ASF (Classical swine fever/African swine fever)
		4) Filovirus infection
		5) Control of Brucellosis in Uganda/ Tanzania
		6) Tuberculosis
		7) Toxoplasmosis

Class		Subject	
		8)	African trypanosomiasis
9.	Advanced Seminar on Conservation Medicine	1)	Principle of biobank and its application**
		2)	Zoonosis studies in Zambia: practical use of the biorepository
		3)	Relational database
		4)	Usage of Next Generation Sequencer****
10.	IVCMEP: Conservation Medicine		A free-designed class selected from any 16 subjects from above. Notice: On completing this class, 2 credits will be given.

Details of each class are subject to change.

If you have any inquiry, contact us via IVCMEP@vetmed.hokudai.ac.jp