

International Veterinary and Conservation Medicine Education Program Syllabus for 2021

- In 2021, all classes are delivered by on-demand video lectures.
- Each class consists of 8 subjects (or less, yet equivalent to 8 subjects).
- Successfully completing a class, a credit is given by Hokkaido University. The credit will certify the student's competency while giving priority to participate in the proceeding IVCMEP conducted on-site at Hokkaido University and other parts of Japan.
- The program starts from 25th October 2021 and ends on 31st January 2022.
- The dead-line of registration is 23rd August 2021.

NOTE

******: Equivalent to 2 subjects

*******: Equivalent to 3 subjects

********: Equivalent to 4 subjects

Class	Subject
1. Chemical hazard I: Field toxicology and risk analysis	1) Introduction to Toxicology
	2) Food Safety
	3) Ecotoxicology & Environmental Toxicology
	4) Forensic Toxicology & Shelter Medicine
	5) Risk Analysis **
	6) Risk communication **
2. Chemical hazard II: Chemical analysis	1) Guidance on environmental chemical analysis
	2) Introduction & Lecture on LC-MS
	3) Lecture on Steroid hormones analysis from plasma: Extract steroid hormones and analyze by LC-ESI/MS/MS
	4) Lecture on heavy metal (including mercury) poisoning
	5) Introduction of KAMPAI project (field research project on lead pollution)
	6) Lecture on neonicotinoid analysis
	7) Lecture on environmental health and environmental monitoring
	8) Lecture on data analysis of LC-MS/MS

Class	Subject
3. Chemical hazard III: Comprehensive Studies on Chemical Hazard Control	1) Pharmacology
	2) Wildlife Toxicology / Ecotoxicology
	3) Toxicologic Pathology
	4) Immunotoxicology **
	5) Experimental Molecular Toxicology ***
4. Chemical hazard IV: Environmental Remediation	1) New diagnostic technologies opened up by remote sensing ***
	2) Environmental Remediation **
	3) Basic and practices of GIS ***
5. Chemical hazard V: Informatics	1) Basic and Multivariate Analysis: Basics and Practices ****
	2) Computational Toxicology Basic of Molecular Docking ****
6. 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: to get your own robust gauge of the risk
	4) Health Science
	5) How do we remediate abandoned mine sites?
	6) Basic and practices of GIS ***
7. Advanced and Comprehensive studies on Zoonosis Control <u>Notice: Select 8 out of 10 subjects</u>	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) Drug-resistance in bacteria
	8) Influenza
	9) Toxoplasmosis
	10) African trypanosomiasis

Class	Subject
8. Advanced Seminar on Conservation medicine	1) Principle of biobank and its application
	2) Sampling and treatment of biological samples for long-term storage
	3) Usage and application of NGS (next generation sequencer)**
	4) Usage and application of LC-MS/MS***
	5) Data management for biobank
9. International Veterinary and Conservation Medicine Education Program to foster the next generation of human resources to bridge between Africa and Japan: Conservation medicine	<p>A free-designed class selected from any 16 subjects from above.</p> <p><u>Notice: On completing this class, 2 credits will be given.</u></p>
10. International Veterinary and Conservation Medicine Education Program to foster the next generation of human resources to bridge between Africa and Japan: Japanese culture	1) Japanese language and culture
	2) Sustainable Development in Japan and African countries
	3) Recent Topics in Veterinary and Conservation Medicine in Japan
	4) Training on Team Working
	5) One-Health and SDGs
	6) Interdisciplinary Collaboration
	7) International Agencies and Collaborative Activities
	8) Thematic Research

For registration, visit <https://africa.vetmed.hokudai.ac.jp/en/admission.html>

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