

Course title: Principles of Clinical Research

Course Syllabus in English			
Course Description	This course will introduce the importance of clinical research and evidence-based medicine, the relevant ethical considerations and guidelines for good clinical practice with a focus on the formulation of a clinical research question. In addition to practicing some of the essential skills related to critical literature review, this course offers support in basic statistical analysis, and to help make their research project a success (i.e. message delivery and publication).		
Course Requirements	The course is targeted at veterinary students or students under related disciplines, include both undergraduate and post-graduate, who want to learn or improve the skills for conducting clinical research and publishing results and also at those with a general interest in research and documentation of clinical cases. <i>Advanced English proficiency is required.</i>		
Course Objectives	The goal of this course is to introduce the principles of clinical research, including skills and knowledge on why and how to do research, how to build a good research environment, and where to find additional resources, tools, and reference packages to support a research project.		
Learning Outcomes	<p>At the end of this course, participants should be able to:</p> <ul style="list-style-type: none"> • Understand the importance of doing clinical research and the link to evidence-based medicine • Apply the basic principles of literature search and critical appraisal • Follow good clinical practice guidelines and adhere to ethical requirements • Identify a clinical problem, formulate a clinical research question, and select the study design • Perform sample size calculation and basic statistical analyses • Describe the principles of scientific writing • Deliver research message effectively 		
Required Readings	<ul style="list-style-type: none"> • Petrie and Sabin (2020). <i>Medical Statistics at a Glance</i>. Fourth Edition. Wiley-Blackwell. • Holmes and Cockcroft (2008). <i>Handbook of Veterinary Clinical Research</i>. Wiley-Blackwell. • Swales, J. M., & Feak, C. B. (2012). <i>Academic Writing for Graduate Students</i> (3rd ed.). Ann Arbor: University of Michigan Press. • Krzywinski and Altman (2013). Power and sample size. <i>Nat Methods</i> 10, 1139–1140. 		
Grading	<ol style="list-style-type: none"> 1. Workshop engagement and homework (50%) 2. Final Blitz Talk (50%) 		
Course Schedule			
Week	Date	Topic	Lecturer
Week 1	2023/09/05	Introduction of the course: importance of clinical research	Nai-Chieh Liu
Week 2	2023/09/12	Literature review and reference management (Pre-recorded lecture)	Nai-Chieh Liu
Week 3	2023/09/19	Critical appraisals	Nai-Chieh Liu
Week 4	2023/09/26	Critical appraisals: workshop	Nai-Chieh Liu
Week 5	2023/10/03	Study designs	Nai-Chieh Liu
Week 6	2023/10/10	(Holiday)	
Week 7	2023/10/17	Study designs: workshop	Nai-Chieh Liu

Week 8	2023/10/24	Basics of medical statistics (1)	Nai-Chieh Liu
Week 9	2023/10/31	Basics of medical statistics (2)	Nai-Chieh Liu
Week 10	2023/11/7	Basics of medical statistics: workshop	Nai-Chieh Liu
Week 11	2023/11/14	Basics of scientific writing	Nai-Chieh Liu
Week 12	2023/11/21	Writing an effective abstract	Ya-Pei Chang
Week 13	2023/11/28	Presentation skills	Ya-Pei Chang
Week 14	2023/12/5	Blitz talk (1)	Nai-Chieh Liu + Ya-Pei Chang
Week 15	2023/12/12	Blitz talk (2)	Nai-Chieh Liu + Ya-Pei Chang