開課班級: 食品碩士學程一A **授課老師: 李嘉偉** **學分數: 3**

課程大綱:

本課程的主要目的是提供學生一個對免疫學的基本概念.隨著農場管理技術的進步,家畜的飼養密度和生長表現都持續的在提升.在這種情況下,動物更容易受到傳染病的危害而對產業造成嚴重的經濟損失.動物本身的免疫力在抵抗外來病源菌和病毒上扮演著重要的角色.本克程式著重在介紹免疫系統,各種免疫反應,宿主及病源交互作用,及疫苗.獲得這方面的知識能讓學生了解農場的疾病防治.

outline:

The objective of this course is to provide the students a basic background of immunology. The housing density and the growth performance of domestic animals keep increasing as the consequence of advanced farm management. Under this circumstance, animals are more susceptible to infectious diseases which lead to significant economic losses to the industry. The immunity plays a pivotal role in protecting the animals from invading pathogens and viruses. This course is focused on the introduction of immune system, different types of immune responses, host-pathogen interaction, and vaccination. Acquisition of such knowledge is fundamental for the students to understand disease-controlling strategies of animal husbandry.

教學型態:

課堂教學

成績考核方式:

平時成績:30%
期中考:%
期末考:%
其它: Presentations (70%)%

本科目教學目標:

(1) Understanding innate immunity and adaptive immunity (2) Lymphocyte differentiation and functions (3) Leukocyte migration (4) Autoimmue diseases

參考書目:

Immunology (Kuby)

課程進度表：

週次	起訖月日	授課單元(內容)	備註
第1週	9.12~9.19	Introduction of the course and overview of immunity	8日正式上課。8~12日課程加退選，轉學(系)生、復學生及延修生選課，雙主修、輔系申請，12日申辦抵免學分截止日
第2週	9.19~9.26	Introduction of cells types and organs that are in-volved in the immune system	
第3週	9.26~10.03	Mechanisms of innate immunity	28日(日)孔子誕辰紀念日/教師節(放假),29日(一)補假
第4週	10.03~10.10	Recognition of the host to invading pathogens	29日成績優異提前畢業者提出申請截止日
第5週	10.10~10.17	Details of inflammatory responses	6日(一)中秋節(放假)，10日(五)國慶日(放假)
第6週	10.17~10.24	Explanation of leukocyte migration at the molecular level	14日學生宿舍安全輔導暨複合式防災疏散演練。18日多益測驗
第7週	10.24~10.31	Mechanisms of acquired immunity	24日(五)補假，25日(六)光復暨古寧頭大捷日(放假)。
第8週	10.31~11.07	Antibodies	30日校課程委員會
第9週	11.07~11.14		3~9日期中考試
第10週	11.14~11.21	Responses of B cells to antigens	13日教務會議,16日教師期中成績上網登錄截止日
第11週	11.21~11.28	Responses of T cells to antigens	
第12週	11.28~12.05	Processing of antigens in antigen presenting cells	24~28體育運動週。24日校園路跑。27日運動大會夜間開幕，28日運動大會活動，29日101週年校慶活動日，照常上班
第13週	12.05~12.12	Structure of antibody and its interaction with anti-gens	
第14週	12.12~12.19	Pathways and bactericidal functions of the comple-ment system	12日申請停修課程截止日
第15週	12.19~12.26	Principles of vaccination	
第16週	12.26~1.02	Biotechnological methods that are based on the theo-ries of immunology	22日校務會議。25日行憲紀念日(放假)
第17週	1.02~1.09	Hypersensitivity and related abnormalities	1日(四)開國紀念日(放假)
第18週	1.09~1.16		5~11日期末考試，10~11日學生退宿