97-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	微生物特論	Serial No. / ID	1541 / BTN1023
Dept.	生物產業科技學系碩士在職專	School System / Class	碩士在職專班1年1班
Lecturer	獫泰浩	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	NO
Time / Place	(六)9AB / H540	Language	Chinese

Introduction

21st century is the century of life science. Microbiology is an important field of life science, a disciplinary in the level of cell and molecules composes of microbial structure, metabolism, genetics, ecological distribution and classification. Microbiology is a fast growing sciences which has broad impacts in biotechnology, which have be widely used in industry, agriculture, medicine and health, environmental protection and other fields. Microbiology course need to keep up the pace of development of the above subject, to boost students to learn and understand the latest knowledge. This course focuses on special topics in tools of the laboratory: the methods for studying microorganisms, procaryotic profiles: the bacteria and archaea, eucaryotic cells and microorganisms, an introduction to the viruses, elements of microbial nutrition, ecology, and growth, physical and chemical control of microbes, drugs, microbes, host - the elements of chemotherapy, microbe-human interactions: infection and disease, the nature of host defenses, the acquisition of specific immunity and its applications, immunization and immune assays, and disorders in immunity, etc. The aims of this course are followings: First, improve the learning capabilities of students through the course, students learn to identify and solve problems, develop their interest in learning, stimulate their own thinking, so that students can from the "want me to learn" into "I want to learn"; The second is for students to establish a systematic knowledge of microbiology. Biotechnology and life science has become a leading fields in industry, and microorganisms is particularly important to technology development.

Outline

Special Topics in Tools of the Laboratory: The Methods for Studying Microorganisms（I）
Special Topics in Tools of the Laboratory: The Methods for Studying Microorganisms（II）
Special Topics in Procaryotic Profiles: The Bacteria and Archaea（I）
Special Topics in Procaryotic Profiles: The Bacteria and Archaea（II）
Special Topics in Eucaryotic Cells and Microorganisms（I）
Special Topics in Eucaryotic Cells and Microorganisms（II）
Special Topics in An Introduction to the Viruses（I）
Special Topics in An Introduction to the Viruses（II）
Special Topics in Elements of Microbial Nutrition, Ecology, and Growth
Special Topics in Physical and Chemical Control of Microbes
Special Topics in Drugs, Microbes, Host - The Elements of Chemotherapy
Special Topics in Microbe-Human Interactions: Infection and Disease
Special Topics in The Nature of Host Defenses
Special Topics in The Acquisition of Specific Immunity and Its Applications

Special Topics in Immunization and Immune Assays
Special Topics in Disorders in Immunity（I）
Special Topics in Disorders in Immunity（II）
Special Topics in Disorders in Immunity（III）

Prerequisite
General Microbiology