

课程大纲

COURSE SYLLABUS

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| 1. | 课程名称(中英文) Course Title(Chinese and English) | Introduction to Human Health and Disease |
| 2. | 课程类别 Course Type | 必修 (compulsory course) |
| 3. | 授课院系 Originating Department | 生物系 (Department of Biology) |
| 4. | 课程学时 Credit Hours | 32 hours |
| 5. | 课程学分 Credit Value | 2 学分 (2 credits) |
| 6. | 授课语言 Teaching Language | 英文 (English) |
| 7. | 授课教师 Instructor(s) | 孙颖: suny@sustc.edu.cn |
| 8. | 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements | None |
| 9. | 教学目标 Course Objectives | |
| | <p>This course provides an introduction to the molecular basis of common human diseases. We will introduce the fundamental concepts of health and disease. Topics to be presented include Infectious diseases, Immune-mediated diseases, Cancer and Kidney Diseases. Also included will be methods to diagnose, treat and prevent disease, discussions of gene therapy and traditional drug-based interventions. Several class periods will be devoted to discussions of case studies (patients with particular diseases). We will also discuss social impact of individual diseases.</p> <p>Specifically, after completing this course, students should be able to:</p> <ul style="list-style-type: none"> ➤ Draw upon basic knowledge of biology and chemistry to describe the nature and impacts of human disease. ➤ Describe the role of scientific method in biomedical science. ➤ List the characteristics of the transmissible agents of disease and describe the basic mechanisms of pathogenesis. ➤ Describe the basic functions of inflammation and the pathogenesis of immune deficiencies. ➤ Explain the process of malignant transformation, invasion and metastases as well as the pathogenesis of cancer. ➤ Explain the basic functions of most of the systems of humans and describe the pathogenesis of at least one disease that affects each of these systems. ➤ Explain the relevance of the study of pathology to the understanding of human development and wellbeing. | |
| 10. | 教学方法及授课创新点 Teaching Methods and Innovations | |

Teaching will be through lectures, small group discussions, demonstrations and student presentations. The in-course assessment exercises include assessment of essay writing, paper presentations and problem solving. Degree classification will be based upon the marks obtained in each of the component modules, with the appropriate credit weighting applied.

11. 教学内容及学时分配 **Course Contents and Course Schedule**

| Week | Periods | Topic |
|-------|---------|---|
| 1 | 2 | General Concepts of Human Disease |
| 2 | 2 | Infectious Diseases (Bacterial and Viral Diseases) |
| 3 | 2 | Student Presentation and Discussion |
| 4 | 2 | Infectious Diseases (Fungal and Protozoan Diseases) |
| 5 | 2 | Student Presentation and Discussion |
| 6 | 2 | Immune-mediated Diseases (Innate and Acquired Defences) |
| 7 | 2 | Immune Deficiencies (AIDS etc.) |
| 8 | 2 | Student Presentation and Discussion |
| 9 | 2 | Cancer and Malignant Transformation |
| 10 | 2 | Student Presentation and Discussion |
| 11 | 2 | The Traffic of Cancer: Metastatic Disease |
| 12 | 2 | Student Presentation and Discussion |
| 13 | 2 | Cancer Treatment and Drug Resistance |
| 14 | 2 | Student Presentation and Discussion |
| 15 | 2 | The Urinary System Diseases |
| 16 | 2 | Student Presentation and Discussion |
| 17-18 | 2 | Final examination (A brief review essay) |
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12. 课程考核 **Course Assessment**

(50%) Presentations and Discussion Participation
(40%) Review essay
(10%) Class Performance and Assignments

13. **教材及其它参考资料 Textbook and Supplementary Readings**

1. An Introduction To Human Diseases: Pathology and Pathophysiology Correlations/ Leonard V. Crowley- 9th Edition
2. Introduction to Human Disease – Pathology for Health Professionals – Agnes G. Loeffler and Michael N.Hart – Jones & Bartlett Learning Editors – 6th Edition