Course Syllabus

1. Program of Study Bachelor of Science (Biological Sciences)
Faculty/Institute/College Mahidol University International College

2. Course Code ICBI 304
Course Title Basic Immunology

3. Number of Credits 4(4-0-8) (Lecture/Lab/Self-study)

4. Prerequisite *(s)* none

5. Type of Course Elective

6. Trimester/ Academic Year
3rd trimester/ every academic year

7. Course Condition
Number of students is 20-30

8. Course Description
Current understanding of the cellular and molecular interactions in the inductions, expression, and regulation of the cellular and humoral immune responses; recent knowledge and applications concerning immunity to various microbial infections as well as antigen-antibody interactions; serodiagnosis and detection of cell-mediated immune response.

9. Course Objective *(s)*
1. Students should gain an understanding of basic aspects of the structure and functions of the immune system.
2. Students should describe the applied aspects of immunology such as defense mechanism, allergy and auto immunity.
3. Students should understand the cellular and molecular interaction of the immune responses.

10.Course Outline

week	Topics/Seminar	Hours			Instructor
		Lecture	Lab	Self-study	
1	Introduction Principle concept of immunology	4	0	8	Prof. Stitaya Sirisingha
2	Humoral immune response Immunoglobulins	4	0	8	Prof. Stitaya Sirisingha
3	Antigen-antibody interaction	4	0	8	Prof. Stitaya Sirisingha
4	Cell-mediated immune response Immunoregulation and cytokines	4	0	8	Prof. Stitaya Sirisingha
5	Immunogenetics Immunological tolerance and memory	4	0	8	Dr. Molvibha Vongsakul
6	Mid-term examination	4	0	8	Prof. Stitaya

					Sirisingha
7	Hypersensitivity Autoimmunity	4	0	8	Dr. Molvibha Vongsakul
8	Transfusion & transplantation Immunological disorders	4	0	8	Dr. Molvibha Vongsakul
9	Mucosal immunology Host defense against microbial infection	4	0	8	Prof. Stitaya Sirisingha
10	Cancer immunology Immunology of HIV infection	4	0	8	Prof. Stitaya Sirisingha
11	Applications of immunological techniques	4	0	8	Prof. Stitaya Sirisingha
Final examination					
	Total	44	0	88	

11. Teaching Method *(s)*

1. Lecture
2. Suggested readings
3. Discussion in class

12. Teaching Media

1. Powerpoint Presentations
2. Texts and teaching materials

13. Measurement and Evaluation of Student Achievement

Student achievement is measured and evaluated by

13.1 The ability to understand basic aspects of the structure and functions of the immune system.

13.2 The ability to describe the applied aspects of immunology such as defense mechanism, allergy and auto immunity.

13.3 The ability to understand the cellular and molecular interaction of the immune responses.

Student's achievement will be graded according to the college and university standard using the symbols: A, B+, B, C+, C, D+, D and F. Students must attend at least 80% of the total class hours of this course.

Ration of mark

1. Mid-term examination 50%
2. Final examination 50%

Total 100%

14. Course evaluation

14.1 Students' achievement as indicated in number 13 above.

14.2 Students' satisfaction towards teaching and learning of the course using questionnaires.

15. Reference *(s)*

1. Roilt, I. Essential immunology. 9th Edition. USA. Blackwell Science Ltd. 1997.

2. Lydyard, P., Whelan, Al and Fasger, MlW. Instant notes in immunology. 2nd Edition. USA. Garland Science/ BIOS Scientific Publishers Ltd.2004.

16. Instructor *(s)*

Professor Stitaya Sirisinha
Assistant Professor Molvibha Vongsakul

17. Course Coordinator

Assoc. Prof. Saovanee Dharmsthiti.