



Course Specification

CHS 2413 Pathology and Physiopathology

College of Allied Health Sciences

Suan Sunandha Rajabhat University

The 2nd semester of 2022

Part 1 General information

1. Code and subject

Code CHS 2413
Subject Pathology and Physiopathology

2. Credits 3 (3-0-6)

3. Course and group of subjects

3.1 Course Bachelor of Science (Cannabis Health Science)
3.2 Group of subjects Specific subject of Health Science

4. Primary instructors and teacher

4.1 Primary instructors Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
4.2 Teacher Assoc. Prof. Dr. Thavatchai Kamoltham, MD.

5. Contact

College of Allied Health Sciences,
Suan Sunandha Rajabhat University
E-mail: thavatchai.ka@ssru.ac.th

6. Semester/ academic year

6.1 Semester The 2nd semester of 2022
6.2 Number of students 10 persons

7. Pre-requisite None

8. Co-requisites None

9. **College** College of Allied Health Sciences
Samut Songkram Education Center
Suan Sunandha Rajabhat University

10. **Date of revision** November 16, 2022

Part 2 Target and objective

1. Target of the subject

- 1.1 To develop students' ability to describe the pathology of various diseases, including the causes, mechanisms, and variants of cells, tissues, and organs affected by the disease or malfunctioning.
- 1.2 To develop students' ability to describe the characteristics of various diseases and the dysfunction of organs for applications in healthcare and health promotion.

2. Objective

This course content was developed to be used for the Bachelor of Science Program in Cannabis Health Science, which, according to current research, prompts for application.

Part 3 Specifications and teaching details

1. Subject specifications of CHS2413 Pathology and Physiopathology

The pathology of various diseases, causes, mechanisms and variant of cells, tissues and organs affected by the disease, or malfunction, describes the characteristics of various diseases, dysfunction of organs for applying in healthcare and health promotion.

2. Teaching hours per semester

Lecture (hours)	Tutorial (hours)	Practice (hours)	Self-study
30	According to the needs of specific students and group agreements.	-	60 hours/week

3. Consultation and additional tutorial

- 3.1 Personal consultation at the teacher's office on the 5th floor
- 3.2 Phone consultation 081-886-7176
- 3.3 E-mail thavatchai.ka@ssru.ac.th
- 3.4 Social media Line and Facebook
- 3.5 Internet/web board https://elahs.ssru.ac.th/thavatchai_ka/

Part 4 Outcome evaluation**1. Moral and ethic****1.1 Moral and ethics development**

- (1) Discipline, responsibility, reliability, honest sacrifice

1.2 Method

- (1) Lecture with 2-ways communication with example
- (2) Group assignment with presentation
- (3) Late arrival is 15 min with agreement of punishment

1.3 Evaluation

Observe desirable behavior. There is an increase in numbers such as on-time attendance, dress code according to the date of the exam, the availability of participation or the activities of students. Responsibility, duties, etc.

2. Knowledge**2.1 Knowledge development**

- (1) Knowledge and understanding of disease, general pathology, systemic pathology, clinical pathology, nutritional pathology and pathological physiology.
- (2) Knowledge and understanding of the role of pathophysiology in the diagnosis and treatment of disease.
- (3) knowledge and understanding of using appropriate terminology, explaining the importance of homeostasis, describing the nature and causes of disease, and diagnosis of the diseases.

2.2 Method

(1) Student-focused teaching focuses on students' knowledge and understanding of disease, general pathology, systemic pathology, clinical pathology, nutritional pathology and pathological physiology.

(2) Social Network and Websites

(3) e-Learning

2.3 Evaluation

(1) Midterm examination

(2) final examination

(3) Class participation and discussion

3. Intellectual skill

3.1 Intellectual skill development

(1) Can be searched It is used to identify and analyze complex problems on their own.

(2) Can apply and integrate pathology of various diseases, causes, mechanisms and variant of cells, tissues and organs affected by the disease, or malfunction, describes the characteristics of various diseases, dysfunction of organs for applying in healthcare and health promotion.

(3) It can be used at the discretion to resolve problems and to suggest new approaches in various situations creatively.

3.2 Method

(1) Collaborative discussion teaching

(2) Classroom Practice

(3) Teaching using case studies, problem issues, supplementary activities

3.3 Evaluation

(1) Midterm exams and Final exams using case studies or problem problems.

(2) Reporting of research results by presenting a class page and a report document.

(3) Evaluation based on the actual condition of the assigned work.

4. Interpersonal relationship skill and responsibility

4.1 Interpersonal relationship skill and responsibility development

(1) Good human relations, able to work with others and adapt to the situation and culture of the organization.

(2) Be able to effectively perform and take responsibility for the assigned tasks.

(3) Be creative, can assist and facilitate situation solving in the role of leader or in the role of a colleague.

(4) Responsible for knowledge development their professional ability to continuously

4.2 Method

Use a teaching that has an activity assigned to a group task.

4.3 Evaluation

(1) Assignment presentation

(2) Team participation observation

(3) To participate in the evaluation of students.

5. Numerical analysis, communication and intellectual skill

5.1 Numerical analysis, communication and intellectual skill development

(1) Able to communicate effectively in both speech and writing, know, choose, and use presentation patterns that are appropriate for different issues and audiences.

(2) Skilled in using quantitative analysis methods for creative decision-making To interpret and suggest solutions or disputes.

(3) The company can choose to use appropriate information technology and communication techniques to collect information, interpret and communicate information.

5.2 Method

(1) Assign educators to improve their ability to use information technology and computers.

(2) Case study and presentation

5.3 Evaluation

Use the assigned assessment model with the criteria for evaluating presentation techniques and accuracy. The use of written, spoken language, the ability to describe.

Week	Topic/Detail	Qty (Hr.)	Instructional activities/media	Method/Tool	Evaluation	Lecturer
1	<p>1. Introduction objective and teaching Basic knowledge of disease, general Pathology, systemic Pathology, clinical Pathology, nutritional Pathology and pathological Physiology</p> <p>2. Chapter 1 : Introduction to Pathology and Physiopathology</p> <p>- explain role of pathophysiology in diagnosis and treatment of disease</p> <p>- use appropriate terminology , explain the importance of homeostasis, describe the nature and causes of disease, and diagnosis of the diseases.</p>	3	<p>- To study in classroom with the biological and physical manifestations of disease as they correlate with the underlying abnormalities and physiological disturbances.</p> <p>- To introduce each other, subject agreement and how to learn in the class.</p> <p>To study with Google Meet</p> <p>- Lecture by Power point and group activities</p>	- To use Power Point and other media	<p>- Question and answer</p> <p>- Attendance</p> <p>LO : Student get the way of subject and how to studying and student know about pathophysiology.</p>	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
2	Chapter 2 : Cellular Pathology	3	<p>To study with Google Meet</p> <p>- Lecture by Power point and group activities</p>	<p>- To use Google Meet, Moodle</p> <p>- To use Power Point and YouTube</p>	<p>- Question and answer</p> <p>- Attendance and Observation</p>	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.

Week	Topic/Detail	Qty (Hr.)	Instructional activities/media	Method/Tool	Evaluation	Lecturer
3	Chapter 3 : Principal Pathology of Infection	3	To study in classroom with Problem Base and discussion - Lecture by Power point and group activities	- To use Power Point and other media	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
4	Chapter 4 : Inflammation	3	To study in classroom with Problem Base and discussion - Lecture by Power point and group activities	- To use Power Point and other media	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
5	Chapter 5.1 : Pathology of Healing	3	To study in classroom with Problem Base and discussion - Lecture by Power point and group activities	- To use Power Point and other media	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
6	Chapter 5.2 : Pathology of healing (Factors improved wound healing)	3	To study with Google Meet - Lecture by Power point and group activities	- To use Google Meet, Moodle - To use Power Point and YouTube	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
7	Summary & Midterm Examination	3	Self-learning	Self-learning	Self-learning	Self-learning
8	Chapter 6.1 : Hemodynamic- Disorders	3	To study with Google Meet/class - Lecture by Power point and group activities	- To use Google Meet, Moodle - To use Power Point and YouTube	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.

Week	Topic/Detail	Qty (Hr.)	กิจกรรมการเรียนการสอน/สื่อที่ใช้	วิธีการ/เครื่องมือ	Evaluation	ผู้สอน
9	Chapter 6.2 Hemodynamic-Disorders (Hemostasis)	3	To study with Google Meet/class - Lecture by Power point and group activities	- To use Google Meet, Moodle - To use Power Point and YouTube	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
10	Chapter 7 : Immunopathology	3	To study with Google Meet/class - Lecture by Power point and group activities	- To use Google Meet, Moodle - To use Power Point and YouTube	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
11	Chapter 8.1 : Neoplasia	3	To study with Google Meet/class - Lecture by Power point and group activities	- To use Google Meet, Moodle - To use Power Point and YouTube	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
12	Chapter 8.2 : Neoplasia (Metaplasia, Dysplasia, Neoplasia)	3	To study with Google Meet/class - Lecture by Power point and group activities	- To use Google Meet, Moodle - To use Power Point and YouTube	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
13	Chapter 9 : Metabolic Disorders	3	To study with Google Meet/class - Lecture by Power point and group activities	- To use Google Meet, Moodle - To use Power Point and YouTube	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.

Week	Topic/Detail	Qty (Hr.)	กิจกรรมการเรียนการสอน/สื่อที่ใช้	วิธีการ/เครื่องมือ	Evaluation	ผู้สอน
14	Chapter 10.1 : Environmental Pathology	3	To study with Google Meet/class - Lecture by Power point and group activities	- To use Google Meet, Moodle - To use Power Point and YouTube	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
15	Chapter 10.2 : Nutritional Pathology	3	To study with Google Meet/class - Lecture by Power point and group activities	- To use Google Meet, Moodle - To use Power Point and YouTube	- Question and answer - Attendance and Observation	Assoc. Prof. Dr. Thavatchai Kamoltham, MD.
166	Final examination	3	Self-learning	Self-learning	Self-learning	Self-learning

Part 5 Teaching plan and assessment

1. Evaluation

Activities	Method	Week	Quotation
1	Observing behavior and results during the course	1-15	10
2	Midterm examination	7	30
3	Final examination	17	40
4	Individual assignment	12	10
5	Group assignment	6	10

Grading evaluation according to Suan Sunandha Rajabhat University

Grade	Range	Score
A	86-100	4.00
A-	82-85	3.75
B+	78-81	3.50
B	74-77	3.00
B-	70-73	2.75
C+	66-69	2.50
C	62-65	2.00
C-	58-61	1.75
D+	54-57	1.50
D	50-53	1.00
D-	46-49	0.75
F	0-45	0.00

Section 6 Teaching material

1. Standard textbook

- 1.1 Emanuel Rubin, and John L. Farber, Essential Pathology, Philadelphia, 1990
- 1.2 William Boyd; Textbook of Pathology, structure and Function in disease, Philadelphia, 8th edition, 1987
- 1.3 James E. Pointer; Alan B. Fletcher; Basic life support, California, 1986
- 1.4 F.B. Walter and M.S Israel; General Pathology, Churchill Livingston Edinburgh and London, 4th edition, 1974
- 1.5 Macfarlane, Reid, callander, Illustrated Pathology, Churchill Livingstone, 5th edition, 2000.
- 1.6 Cotran RS, Kumar V, Collins T. Robins pathologic basis of diseases. Philadelphia, J.B. Saunders Company. 6th edition 1999
- 1.7 Muir's Textbook of Pathology 15th edition

2. Additional material

- Hand-out

Section 7 Evaluation and subject development

1. Course efficiency evaluation by student

- 1.1 Conversations between instructors and learners
- 1.2 Instructor Assessment and Course Assessment

2. Teaching evaluation

Student's Academic Performance

3. Course development

- 3.1 Taught reviews by faculty members in the curriculum
- 3.2 Organize a conference to improve teaching

4. Standard evaluation of the subject by student

The course has a teaching evaluation committee that examines the achievements of students in the course by randomly assessing the exam and the suitability of the rating.

5. The plan for reevaluation and improvement the subject efficiency

The course has a system to review the effectiveness of the course. Based on the results of the student's assessment of teaching. The results of the assessment by the Curriculum Assessment Committee Report on the course of the course (M.5) by the instructor After reviewing the effectiveness of the course, The instructor is responsible for reviewing the content taught. Strategies used to teach and provide guidelines for further improvement

Curriculum Mapping according to Program Specification

Subject	1. Moral and ethic		2. Knowledge			3. Intellectual skill			4. Interpersonal relationship skill and responsibility			5. Numerical analysis, communication and intellectual skill		
	1	2	1	2	3	1	2	3	1	2	3	1	2	3
CHS2413 Pathology and Physiopathology	●	○	○	○	●	○	○	●	●	○	○	○	●	○