Faculty of Nursing, Prince Songkla University

Course Syllabus

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1. Course Title: Advanced Pathophysiology and Pharmacology for Adults and Elderly
2. Code: 646-531
3. Credits: 3(3-0-6) Lecture/Discussion/Presentation 45 hours, Self-study 90 hours
4. Program: Master of Nursing Science, Year 1, Academic Year 2017, Semester 1
5. Course Coordinator: Assoc Prof. Dr. Kittikorn Nilmanat

   Course Coordinator Assistant: Asst. Prof. Dr. Chantra Promnoi
6. Course Description:

   Advanced concept of diseases' occurrence; causes of pathology; pathophysiological alterations in each organ; signs and symptoms; principles of pharmacology and pharmacotherapeutics; rational drug use
7. Course Goal:

   Students will demonstrate in-depth knowledge of pathophysiology of complicated diseases and principles of pharmacotherapy in adult and elderly patients.
8. Course Objectives:

   After completion of this course, students will be able to

   1) describe concepts of diseases' occurrence, causes of pathology, pathophysiological alterations in each organ

   2) describe and analyse signs and symptoms of disease

   3) describe principles of pharmacology and pharmacotherapeutics; rational drug use in adult and elderly patients
9. Course Requirements:

   1) Participation in classroom discussion

   2) Presentation of an assigned case analysis

   3) Submiting report of an assigned case analysis

   4) Examination 3 times

   Students need to be done all of the course requirements otherwise they will not be evaluated in this course.
10. Learning Activities:

    1) Discussion

    2) Self-study

    3) Analysis an assigned case

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4) Assignment working
5) Presentation
6) Written report

11. Course Evaluation: Total score is 100% as following:

1)	Participation in classroom discussion	15%
2)	Presentation of an assigned case analysis	20%
3)	Submiting report of an assigned case analysis	15%
4)	Examination	50%
	First exam	16%
	Second exam	16%
	Third exam	18%

12. Learning Materials/Resources:

Capriotti, T. (2017). *Pathophysiology made incredibly visual!* (3rd ed.). Philadelphia: Wolters Kluwer.

Frazier, M. S. & Drzymkowski, J. W. (2013). *Essentials of human diseases and conditions* (5th ed.). St.Louis, MO: Saunders Elsevier.

Grossman, S. C. & Porth, C. M. (2014). *Porth's pathophysiology: Concepts of altered health states* (9th ed.). Philadelphia, PA: Wolters Kluwer.

Huether, S. E., McCance, K. L., Brashers, V. L., & Rote, N. S. (2017). *Understanding physiopathology* (6th ed.). St. Louis, MO: Saunders Elsevier.

Linton, A. D. (2016). *Introduction to Medical-Surgical Nursing* (6th ed.). St. Louis: Saunders Elsevier.

Nair, M. & Peate, I. (2015). *Pathophysiology for nurses at a glance*. West Sussex: John Wiley & Sons, Ltd.

Patton, K. T. C., Thibodeau, G. A., Anthony, C. P. (2013). *Anthony's textbook of anatomy & physiology* (20th ed.) St.Louis, MO: Mosby Elsevier.

Porth, C. (2015). *Essentials of pathophysiology: Concepts of altered health states* (4th ed.). Philadelphia, PA: Wolters Kluwer

Story, L. (2015). *Pathophysiology: A practical approach* (2nd ed.). Burlington, MA: Jones & Barlett Learning.

VanMeter, K. C. & Hubert, R. J. (2014). *Gould's pathophysiology for the health professions* (5th ed.). St. Louis, MO: Elsevier Saunders.

Willis, L. M. (2015). *Fluids & electrolytes made incredibly easy* (6th ed.). Philadelphia, PA: Wolters Kluwer.

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- CINAHL Plus with FullText

  http://web.ebscohost.com/ehost/search/basic?sid=f199f212-d8a2-4a61-90aea7d50a82ef80%40sessionmgr15&vid=1&hid=25

- ProQuest Nursing & Allied Health

  http://www.nur.psu.ac.th/nur/proquest.html

- Website

https://www.amsn.org/practice-resources/patient-care/joining-forces/pathophysiology

https://www.cdc.gov/diseasesconditions/

http://www.heart.org/HEARTORG/Conditions/Conditions_UCM_001087_SubHomePage.jsp

https://www.cancer.org/cancer.html

https://www.youtube.com/watch?v=mzfnxCEsck4

https://www.youtube.com/watch?v=_x13XDNr39o

13. Schedule (Room 3201)

Date	Time	Content	Teaching/ Learning	Faculty
Aug. 20, 2018	8.00-8.30 am.	Orientation	Discussion	Assoc. Prof. Dr. Kittikorn
	8.30-10.30 am.	1. Concepts of diseases and pathophysiology	Discussion	Assoc. Prof. Dr. Urai
	10.30 – 12.00 am.	Meet advisor: an assigned case analysis	Discussion	Assoc.Prof.Dr. Kittikorn Asst.Prof.Dr. Ploenpit Dr. Charuwan Asst.Prof.Dr. Chantra Dr.Ratjai Asst.Prof.Dr. Luppana
Aug. 27, 2018	9.00-12.00 am.	2. Principle of pharmacology 2.1 Phamacokinetics and Phamacodynamics	Discussion	Assoc.Prof.Dr. Benjamass

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Date	Time	Content	Teaching/ Learning	Faculty
Sept. 3, 2018	9.00-10.00 am.	2.2 Herbal medicines	Discussion	Asst.Prof.Dr. Sukanya
	10.00-12.00 am.	2.3 Rational drug use	Discussion	Asst.Prof.Dr. Thitima
Sept. 10, 2018		3. Pathophysiology of disease or disorders and pharmacotherapy		
	09.00-11.00 am.	3.1 Cell and genetic disorders: 3.1.1 Cancer	Discussion	Assoc. Prof. Dr. Surasak, MD.
	11.00-12.00 am.	Meet advisor: an assigned case analysis	Discussion	Assoc.Prof.Dr. Kittikorn Asst.Prof.Dr. Ploenpit Dr. Charuwan Asst.Prof.Dr. Chantra Dr.Ratjai Asst.Prof.Dr. Chantra Asst.Prof.Dr. Luppana
Sept. 16, 2018	09.00-11.00 am.	3.1.2 Chemotherapies	Lecture/ Discussion	Assoc. Prof. Dr.Pattarapim, MD.
Sept. 17, 2018	11.00 – 12.00 am.	Case analysis: cancer	**Presentation by student /Discussion**	Asst.Prof.Dr. Ploenpit
Sept. 24, 2018	08.00-11.00 am.	3.2 Disorders of neurologic system: - Coma - IICP - Cerebrovascular diseases	Lecture/ Discussion	Asst.Prof.Dr. Luppana
	11.00-12.00 am.	Case analysis: neurological disorders	**Presentation by student /Discussion**	Asst.Prof.Dr. Luppana
Oct. 1, 2018	10.00-11.30 am.	Exam I (1 – 3.1)	Examination	Assoc.Prof.Dr. Kittikorn
Oct. 8, 2018	09.00-11.00 am.	3.3 Fluid, eletrolytes and acid-base imbalances	Discussion	Asst.Prof.Dr. Chantra
	11.00-12.00 am.	Case analysis: Renal failure	**Presentation by student /Discussion**	Asst.Prof.Dr. Chantra

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Date	Time	Content	Teaching/ Learning	Faculty
Oct. 15, 2018	01.00-03.00 pm.	3.4 Disorders of endocrine system - Hypoglycemia - Hyperglycemia - Diabetic ketoacidosis - Hyperosmolar	Lecture/ Discussion	Asst.Prof.Dr. Ploenpit
	03.00-04.00 pm.	Case analysis: Diabetes	**Presentation by student /Discussion**	Dr. Ratjai
Oct. 22, 2018	01.00-03.30 pm.	3.5 Disorders of cardiovascular system: Acute Coronary Syndrome, Heart Failure, Pulmonary Edema	Discussion	Dr. Charuwan
Oct. 29, 2018	1.00 – 2.00 pm.	Case analysis: Heart failure	**Presentation by student /Discussion**	Dr. Charuwan
	2.00-4.00 pm.	3.6 Disorders of respiratory system	Lecture/ Discussion	Asst.Prof.Dr. Ploenpit
Nov. 5, 2018	01.00-02.00 pm.	Case analysis: respiratory failure	**Presentation by student /Discussion**	Asst.Prof.Dr. Ploenpit
	02.30-04.00 pm.	Exam II (3.2 – 3.5)	Examination	Assoc.Prof.Dr. Kittikorn
Nov. 12, 2018	01.00-03.00 pm.	3.7 Disorders of gastrointestinal system - Hepatitis - Hepatic failure	Discussion	Asst.Prof.Dr. Ploenpit
	03.00-04.00 pm.	Case analysis: Hepatic failure	**Presentation by student /Discussion**	Asst.Prof.Dr. Chantra
Nov 19, 2018	01.00-03.30 pm.	- Acute problems of GI: Pancreatitis case analysis	Lecture/ Discussion	Asst.Prof.Dr. Ploenpit
Nov 26, 2018	01.00-04.00 pm.	3.8 Disorders of immune systems – Immunodeficiency – Anti-HIV drugs	Discussion	Assoc.Prof.Dr. Kittikorn
Dec 3, 2018	01.00-02.00 pm.	Case analysis: HIV/AIDS	**Presentation by student /Discussion**	Assoc.Prof.Dr. Kittikorn
	02.00-04.00 am.	3.9 Multiple organ dysfunction Syndrome (MODS)	Lecture/ Discussion	Asst.Prof.Dr. Chantra
Dec 10, 2018	01.00-02.00 pm.	Case analysis: MODS	**Presentation by student /Discussion**	Asst.Prof.Dr. Chantra

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Date	Time	Content	Teaching/ Learning	Faculty
	02.00-03.30 am.	Exam III (3.6-3.9)	Examination	Asst.Prof.Dr. Chantra
	03.30-04.00 am.	Course evaluation	Discussion	Assoc.Prof.Dr. Kittikorn Asst.Prof.Dr. Chantra

Note:

1. Students are required an extra-time for self study, apart from the course schedule, approximately 11-12 hour/week (total 90 hour/course) for revised lesson, preparation for an assigned case presentation and discussion including writing its paper under advisor's supervision.

2. For analysis, discussion and written a report of an assigned case, an assigned case analysis is a group work (1-2 student/case) and will be done under your advisor's supervision. Each group will be provided an assigned case of his/her interest on Aug. 21, 2017 and Sept. 4, 2017. Each group has to self-study, analyze and compare the assigned case with theory and literature support, and discuss the case in the classroom at the time allocated on the timetable. Then, each group has to write a report of an assigned case analysis and submit a copy of the report to your advisor one week after discussion.

Outline of a report written of an assigned case include:

1) Title, table of content

2) Detail of an assigned case

3) Comparing causes, pathology, pathophysiological alterations, pathological adaptations, signs and symptoms, and principles and pharmacotherapy show in a patient with theory using research or literature support

4) Summarization and suggestions

5) References

*Format, citation and reference follows APA format.

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3. Case analysis advisors

Case analysis	Advisor	Students (ID and Name)
1. Cancer	Asst. Prof.Dr. Ploenpit	
2. HIV/AIDS	Asst. Prof. Dr. Kittikorn	
3. Renal failure	Asst. Prof. Dr. Chantra	
4. Diabetes	Dr. Ratjai	
5. Heart failure	Prof.Dr. Charuwan	
6. Respiratory failure	Asst. Prof.Dr. Ploenpit	
7. Hepatic failure	Asst. Prof.Dr. Chantra	
8. Neurological disorders	Asst.Prof.Dr.Luppana	
9. MODS	Asst. Prof. Dr. Chantra	

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