

T6. Course Specification (CS)

Institution: Najran university	Date : 19/12/1438H
College/Department : College of Pharmacy / Department of Pharmacology	

A. Course Identification and General Information:

1. Course title and code :	Pharmacology III (PHCL-444)		
2. Credit hours:	3(2+1)		
3. Program(s) in which the course is offered:	Pharmaceutical Sciences.		
(If general elective available in many programs indicate this rather than list programs).			
4. Name of faculty member responsible for the course:	Dr. Basel A. Abdel-Wahab Mohammed, Dr. Ibrahim Ahmed Shaikh.		
5. Level/year at which this course is offered :	level 8/ 4th year		
6. Pre-requisites for this course (if any) :	Pharmacology II (PHCL-443)		
7. Co-requisites for this course (if any):	None		
8. Location if not on main campus :			
9. Mode of Instruction (mark all that apply)			
a. Traditional classroom	<input checked="" type="checkbox"/>	What percentage	<input type="text" value="100"/>
b. Blended (traditional and online)	<input type="checkbox"/>	What percentage	<input type="text"/>
c. e-learning	<input type="checkbox"/>	What percentage	<input type="text"/>
d. Correspondence	<input type="checkbox"/>	What percentage	<input type="text"/>
f. Other	<input type="checkbox"/>	What percentage	<input type="text"/>

عليه تعليق [T1]:

B. Objectives

- What is the main purpose for this course?
 - Provide students with the full pharmacological information on chemotherapy of infectious diseases including bacterial diseases, fungal diseases, viral diseases, antiprotozoal and anthelmintic drugs in addition to cancer chemotherapy.
 - Detailed study pharmacology of hormones and other endocrine drugs

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

- This course will be well maintained through periodic updating based on the recent developments in the pharmacy profession either through the internet and the online sources or through recent publications.
- Used diagrammatic explanation where ever is required.
- Use of example during explanation for easy and better understanding of students.

C. Course Description (Note: General description in the form used in the Bulletin or handbook should be attached.)

Course Description:

The first part of the course deals with studying drugs used in treatment of infectious diseases including bacterial diseases, fungal diseases, viral diseases, antiprotozoal and anthelmintic drugs. In addition to anticancer drugs, immune-stimulant and immune-suppressant drugs.

In the second part of this course students will study hormones and its synthetic analogs in addition to hormone receptor blocking drugs and drugs inhibit the hormonal synthesis within the endocrine glands.

1. Topics to be Covered: Theory

List of Topics	No. of Weeks	Contact Hours
Introduction to Chemotherapy	0.5	1
Sulfonamides	0.5	1
Fluoroquinolones	0.5	1
β -lactam antibiotics: Penicillins	0.5	1
β -lactam antibiotics: Cephalosporins	0.5	1
Aminoglycosides, tetracyclines, Chloramphenicol	0.5	1
Macrolides, New antibiotics	0.5	1
Antifungal agents	0.5	1
Antiparasitic agents	0.5	1
Anthelmintic agents	0.5	1
Antiviral agents: Drug treatment of viral infections	1	2
Cancer chemotherapy	1	2
Anti-tubercular drugs.	0.5	1
Immune-suppressant drugs	0.5	1
Immune-stimulant drugs	0.5	1
Introduction to hormones	1	2
Hypothalamic & pituitary hormones: Synthetic analogues and Antagonists	1	2

Thyroid hormones: Synthetic analogues and antagonists	1	2
Corticosteroid hormones: Synthetic analogues and antagonists	1	2
Sex Hormones (Male & Female, contraceptives)	1	2
Pancreatic Hormones: Insulin and Oral hypoglycemics	1	2
Hormones affecting bone, calcium homeostasis (parathyroid, vitamin D, calcitonin), Bisphosphonates	0.5	1

1. Topics to be Covered: Practical

List of Topics	No. of Weeks	Contact Hours
Introduction to chemotherapy and its classification	1	2
Urinary tract infections (Clinical Case)	1	2
Upper respiratory tract infections (Clinical Case)	1	2
Lower respiratory tract infections (Clinical Case)	1	2
Treatment of Tuberculosis (Clinical Case)	1	2
Gastrointestinal infections (Clinical Case)	1	2
Bioassay of pituitary hormones	1	2
Bioassay of thyroid hormones	1	2
Thyrotoxicosis (Clinical case)	1	2
Bioassay of corticosteroids	1	2
Bioassay of sex hormones	1	2
Contraceptive techniques	1	2
Diabetes mellitus (Type-I) (Clinical case)	1	2
Diabetes mellitus (Type II) (Clinical case)	1	2
Revision	1	2

2- Course components (total contact hours and credits per semester:

	Lecture	Tutorial	Practical	Other:	Total
Contact Hours	2	-	2	-	4
Credit	2	-	1	-	3

T2]: 30

T3]: 30

T4]: 60

3-Additional private study/learning hours expected for students per week

6-8

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy.

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table)


Second, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes.

Third, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain).

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Describe pharmacological properties of drugs including mechanism of action, clinical uses, dosage, contra-indications, adverse drug reactions and interactions (Chemotherapy and Hormonal Therapy).	<ul style="list-style-type: none"> Combination of lectures and practical. Individual and group assignments using print media and web based materials. Computer-based and simulation learning. Practical labs demonstrations (look and listen). 	<ul style="list-style-type: none"> Multiple choice and essay tests. Laboratory reports examination. Assignments and quizzes
1.2	List adverse drug reactions, contraindications and drug-drug interactions.		

T5: Final and Periodical Exams

[T6]: Final and Periodical Exams

2.0	Cognitive Skills		
2.1	Explain the pharmacological basis of therapeutics in the proper selection and use of drugs in various disease conditions, microbial chemotherapy.	<ul style="list-style-type: none">• Tutorials include discussion of issues and problems to which analytical skills taught could be relevant.• Practical labs-demonstration (look and listen).	<ul style="list-style-type: none">• Critical thinking questions (CTQ).• Integration questions.• Laboratory examination and practical record book. 
2.2	Explain the pharmacological basis of therapeutics in the proper selection and use of drugs in cancer chemotherapy.		
2.3	Explain the pharmacological basis of therapeutics in the proper selection and use of hormonal drugs.		
3.0	Interpersonal Skills & Responsibility		
3.1	Use critical thinking, problem solving and decision making skills.	<ul style="list-style-type: none">• Group and individual project• Case study	<ul style="list-style-type: none">• Summative assessment through individual and group reports.• Seminars and poster presentation.• Individual student assignments.
3.2	Analyze tasks as a member of a team.		
4.0	Communication, Information Technology, Numerical		
4.1	Operate computer to produce reports, assignment and to prepare oral presentations and also develop skill to use library and internet resources for self-directed learning.	<ul style="list-style-type: none">• Seminars• Assignments	<ul style="list-style-type: none">• Oral presentation.• Viva voce
5.0	Psychomotor:		
5.1	Demonstrate the various screening methods for drugs effecting endocrine system.	<ul style="list-style-type: none">• Practical classes.• Tutorials.• Computer assisted learning.	<ul style="list-style-type: none">• Practical exam.• Clinical case study.• Practical record books.

5. Schedule of Assessment Tasks for Students During the Semester			
	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Periodical Exam (Quiz 1)	4th week	10%
2	Midterm Examination	8 th week	20%
4	Periodical Exam (Quiz 2)	10 th week	10%
5	Practical Examination	16 th week	20%
6	Final Examination (Theory)	17 th week	40%

D. Student Academic Counseling and Support:

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

- Office hours (5 hours per week + appointments).
- Help session (problem solving) : 2hours per week
- Student counselling: as required per week.

E. Learning Resources مصادر التعلم

عليه تعليق [T7]: أكتب تواريخ النشر

<p>1. List Required Textbooks</p> <ul style="list-style-type: none"> • B. Katzung. Basic & Clinical Pharmacology. 14th edition by B.G. Katzung. • Rang and Dale's Pharmacology. 8th edition by J Ritter, R Flower, G Henderson, H Rang. • Lippincott's Illustrated Reviews: Pharmacology, 6th Edition by K. Whalen. • Goodman and Gilman's: The pharmacological Basis of therapeutics. 13th edition by L. Brunton, B. Knollmann, R. Hilal-Dandan.
<p>2. List Essential References Materials (Journals, Reports, etc.)</p> <ol style="list-style-type: none"> 1. British journal of Pharmacology. 2. Journal of Pharmacology and experimental therapeutics. 3. European journal of Pharmacology.
<p>4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)</p> <p> www.pubmed.com www.druglib.com www.icp.org.nz www.globalrph.com www.rx.com </p>

5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

- Ex-pharm.
- Power Lab system.
- Pharma-cal-ogy Software: Drug metabolism Model.
- Pharma-cal-ogy Software: Drug targets + Transduction Model.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)

- A lecture room containing at least 30 seats
- A laboratory to accommodate 30 students.

2. **Accommodation** (Classrooms, laboratories, demonstration rooms/labs, etc.)

- No of classrooms: 2 (B-103, B-104)
- No of Laboratories: 05 (C-066, C-067, C-075, C-079, C-102)
- Instruments: Isolated organ bath, Power-Labs, Passive avoidance, Analgesimeter, Rota-rod, Hot/Cold-plate, Plethysmograph, Water maize.
- Chemicals: Fine chemicals, pure drugs for animal and tissue experiments.
- Medical drug samples for identification.
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2. Computing resources (AV, data show, Smart Board, software, etc.)

1. Computer Labs.
2. Internet and WIFI access.
3. Data show.
4. Smart Board.
5. Desktop computers.
6. Computer software listed above.
7. Saudi Digital Library. <https://sdl.edu.sa/SDLPortal/en/Publishers.aspx>

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list).

G. Course Evaluation and Improvement Processes:

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching

- Course evaluation by students.
- Faculty – students general meeting.
- Taking feedback by using questionnaires.

2. Other Strategies for Evaluation of Teaching by the Program/Department Instructor

- Peer consultation on teaching
- Group discussions with the faculty teaching lectures.

- Analyzing course portfolio.

3. Processes for Improvement of Teaching

- Taking Courses presented by experts on the teaching methodologies
- Periodical departmental revisions on its methods of teaching
- Taking feedback from student and try to fulfill the gap.
- Attending conferences, symposia, workshops.

4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)

- Course report, program of measurement of KPIs of electronic course, external reviewers, course portfolio.
- Comparing materials with exam, random rechecking of examination papers by members and head of the department.

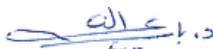
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- The course material and learning outcome are periodically reviewed and changes to be made are discussed in the department and higher councils.
- Course portfolio, KPIs.
- Trend analysis

[T8] تعليق عليه:

Monitoring and Evaluating the strategies of teaching and Assessment
Monitoring and Evaluating the strategies of Measuring the Achievement of the Course Intended Learning Outcomes

Name of instructor: **Dr. Basel A. Abdel-Wahab; Dr. Ibrahim Ahmed Shaikh**





Signature : _____

Date Report Completed: 19/12/1438 H

Name of field experience teaching staff : Pharmacology and toxicology

Program coordinator: **Dr. Ashraf M. Mahmoud.**

Signature: _____ Date received: _____