

T6. Course Specification (CS)

Institution: Najran University	Date: 20/12/1438H
College/Department : College of Pharmacy / Department of Pharmacology	

A. Course Identification and General Information:

1. Course title and code :	Pharmacology II (PHCL-443)		
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:	Shafiuddin Habeeb Mohammed.		
5. Level/year at which this course is offered :	Level 7/ 4th year		
6. Pre-requisites for this course (if any) :	Pharmacology I (PHCL-342)		
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]: ماذا عن تدريس الجزء العملي؟

B. Objectives

1. What is the main purpose for this course? To give the students the full updated basic pharmacological information on the different classes of the drugs acting on the central nervous system, autacoids, respiratory system and gastrointestinal tract.

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 pharmacology either through the internet and the online resources or through recent publications.
 - Used diagrammatic explanation where ever is required.
 - Use of smart mobile media (smart phones, tablets, iPhones,..etc..) for training students on it use in obtaining of fast accurate information about safe drug use from the different online resources (e.g. Rxlist, medline, Medweb, Update, ...etc).

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

Course Description:

This course covers the pharmacological effects, mechanism(s) of action, therapeutic uses, side effects and contraindications of the drugs acting on CNS. This includes general anesthetics, local anesthetics, sedative-hypnotics, drugs used in the treatment of attention deficit syndrome and disorders of memory, antidepressants, antipsychotics and anxiolytic drugs in addition to antiepileptic drugs, antiparkinsonian drugs, narcotic and non-narcotic analgesics. Moreover, the pharmacological basis of drugs affecting autacoids and drugs affecting respiratory and gastrointestinal tract also studied

1. Topics to be Covered: Theory

List of Topics	No. of Weeks	Contact Hours
Autacoids; Histamine and antihistaminics	1	2
Serotonin and anti-serotonin drugs	1	2
Angiotensin and kinins; and drug affecting it	1	2
Prostaglandins and drug affecting it	0.5	1
Drug treatment of asthma	1	2
Antitussive and expectorant drugs	0.5	1
Drug treatment of peptic ulcer	1	2

Laxatives, antidiarrheal drug and antiemetics	1	2
Introduction to CNS	0.5	1
General anesthetics	1	2
Pre-anesthetic medication and skeletal muscle relaxants	0.5	1
Local anesthetics	0.5	1
Sedative and hypnotics	0.5	1
Antipsychotic drug	0.5	1
Antipsychotics and lithium	0.5	1
Antidepressant	0.5	1
Antiparkinsonian drug	0.5	1
Antiepileptic drug	1	2
Opioid analgesic and opioid antagonist	1	2
Non-steroidal anti-inflammatory drugs	1	2

1. Topics to be Covered: Practical

List of Topics	No. of Weeks	Contact Hours
Introduction to bioassay	1	2
Bioassay of histamine	1	2
Bioassay of antihistaminics	1	2
Bioassay of serotonin	1	2
Bronchial asthma (Clinical case)	1	2
Peptic ulcer (Clinical case)	1	2

Bioassay of antiulcer drugs	1	2
Screening of antipsychotic activity	1	2
Screening of antiparkinsonial activity	1	2
Screening of antidepressant activity	1	2
Screening of narcotic analgesic activity	1	2
Screening of non-narcotic analgesic activity	1	2
Screening of anticonvulsant activity	1	2
Screening of antianxiety activity	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

تعليق عليه [T2]: 30

تعليق عليه [T3]: 30

تعليق عليه [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 the pharmacological properties, classification of drugs included in autacoids, respiratory system and in GIT; and also drug effecting CNS.	<ul style="list-style-type: none"> Combination of lectures and practical. 	<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.		
2.0	Cognitive Skills		
2.1	Predict the possible mechanism of action, adverse effect, drug interaction and contraindications of different drugs acting on respiratory system and autacoids.	<ul style="list-style-type: none"> Group discussion and directed learning including 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	Predict the possible mechanism of action, adverse effect, drug interaction and contraindications of different drugs acting on GIT.		
2.3	Predict the possible mechanism of action, adverse effect, drug interaction and contraindications of different drugs acting on central nervous system.		
3.0	Interpersonal Skills & Responsibility		
3.1	Use critical thinking, problem solving and decision making skills.	<ul style="list-style-type: none"> Combination of lecture and practical Tutorial 	<ul style="list-style-type: none"> Clinical case study. Practical record books.
3.2	Analyze tasks as a member of a team.		
4.0	Communication, Information Technology, Numerical		

[T5]: Final and Periodical Exams

[T6]: Final and Periodical Exams

4.1	Operate computer software to produce reports, assignment and to prepare oral presentations and develop skill to use library and internet resources for self-directed learning.	<ul style="list-style-type: none"> The use of search engines on the internet for study of recent trend on pharmacology. 	<ul style="list-style-type: none"> Practical exam. Clinical case study.
5.0	Psychomotor:		
5.1	Demonstrate the various screening methods for drugs acting on CNS.	<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 I)	4th week	10%
2	Midterm Examination	9th week	20%
3	Periodical Exam (Quiz 2)	10th week	10%
4	Practical Examination	16th week	20%
5	Final Examination (Theory)	17th 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 counseling: as required per week.

E. Learning Resources

عليه تعليق [T7]: أكتب تواريخ النشر

1. List Required Textbooks

- Basic and Clinical Pharmacology 14th Edition by B.G. Katzung.
- Rang & Dale's Pharmacology, 8th Edition by H. P. Rang, J. M. Ritter, R. J. Flower, and G. Henderson.
- Lippincott 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.

2. List Essential References Materials (Journals, Reports, etc.)

1. British journal of Pharmacology.
2. Journal of Pharmacology and experimental therapeutics.
3. European journal of Pharmacology.

4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)

www.pubmed.com
www.druglib.com
www.icp.org.nz
www.globalrph.com
www.rx.com

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.

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

- Number of classrooms: 2 (B103, B104)
- Number of laboratories: 5 (C066, C067, C075, C079, C102)
- Instruments: Isolated organ bath, Power-Lab, Passive avoidance, Analgesimeter, Rota-rod, Hot/Cold plate, Plethysmography, Water maize.
- Chemicals: fine chemicals, pure drugs for animals and tissue experiments.
- Medical drug samples for identification.

2. Computing resources (AV, data show, Smart Board, software, etc.)

- Data show.
- Smart media: mobile phones, tablets, with Wifi-internet supply.
- Desktop computers.
- Computer software listed above.
- 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).

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G. Course Evaluation and Improvement Processes:

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching

- Course evaluation by students on the academic system of Najran University.
- 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 and 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 outcomes are periodically (annually) reviewed and updated and changes to be made are applied after discussion in the department scientific council.
- Analyzing the course portfolio.
- Comparing the course KPIs.
- Trend analysis.

Name of instructor: Shafiuddin Habeeb Mohammed

Signature :



Date Report Completed: 20/12/1438H

Name of field experience teaching staff: Pharmacology and toxicology

Program coordinator: Dr. Ashraf M. Mahmoud

Signature: _____

Date received: _____