

Republic of Yemen
Ministry of Higher Education & Scientific Research
21 September University for Medicals and Applied Sciences



Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of [Drug Information and Evidence-Based Practice](#)

Course No. (02.02.232)

2022

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Prof. Ali Alkaf	Dr. Abdulelah Thabet	Dr. -----	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

I. Course Identification and General Information:

	Course Title:	Drug Information and Evidence-Based Practice		
1.	Course Code & Number:	02.02.232		
2.	Credit Hours:	Credit Hours	Theory Hours	Lab. Hours
			Lecture	Exercise
		1	1	--
3.	Study Level/ Semester at which this Course is offered:	5 th Level / 1 st Semester		
4.	Pre –Requisite (if any):	Pharmacology-III		
5.	Co –Requisite (if any):	None		
6.	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm. D.		
7.	Language of Teaching the Course:	English		
8.	Study System:	Semester based System		
9.	Mode of Delivery:	Full Time		
10.	Location of Teaching the Course:	Faculty of Clinical Pharmacy		
11.	Prepared by:	Prof. Ali Alkaf		
12.	Date of Approval:	2023		

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Prof. Ali Alkaf	Dr. Abdulalah Thabet	Dr. -----	Dr. Abdulalah Thabet	Dr. Ali Alyahawi

II. Course Description:

This course is designed for professional pharmacy (Pharm D) students to acquire and develop both the knowledge and the skills for evidence-based medicine (EBM). The course content is designed to provide the students the concepts of clinical research and statistics for evaluating pharmacy literature and practice evidence-based therapy based on a strong background in research design and statistical methods.

III. Course Intended Learning Outcomes (CILOs) :

Referenced PILOs

Learning out of program

A. Knowledge and Understanding: Upon successful completion of the course, students will be able to:

a1	Define the literature references and the importance of drug literature evaluation in practice evidence-based therapy.	A4, A5
a2	Describe the basic principles of statistics and clinical trials	A1

B. Intellectual Skills: Upon successful completion of the course, students will be able to:

b1	Properly use the most appropriate terms and tools in searching evidence-based medical information from professional medical references and sites.	B3, B4, B5
b2	Select appropriate statistics analyses methods and evaluate results of the medical literature.	B4

C. Professional and Practical Skills: Upon successful completion of the course, students will be able to:

c1		
c2		

D. Transferable Skills: Upon successful completion of the course, students will be able to:

d1	Search for information from appropriate sources of primary	
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	literature to verify that patient therapy is based on best scientific evidence available.	D2, D3
d2	Develop interpersonal and communication skills	D1

(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1- Define the literature references and the importance of drug literature evaluation in practice evidence-based therapy.	- Lectures - Discussion - Seminar	Exam Assignment Quiz
a2- Describe the basic principles of statistics and clinical trials	- Lectures - Discussion - Assignments - Seminar	Exam Assignment Quiz

(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1- Properly use the most appropriate terms and tools in searching evidence-based medical information from professional medical references and sites.	- Lectures - Discussion - Assignments - Seminar - Cases presentation	Exam Assignment Quiz
b2- Select the appropriate statistics analyses methods and evaluate results of the medical literature	- Lectures - Discussion - Assignments - Seminar - Cases presentation	Exam Assignment Quiz

(C) Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:		
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Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
	-	
	-	

(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
d1- Search for information from appropriate sources of primary literature to verify that patient therapy is based on best scientific evidence available	- Lectures - Discussion - Assignments - Seminar - Cases presentation	Exam Assignment Quiz
d2- Develop students interpersonal and communication skills	- Discussion - Seminar - Cases presentation	Presentation

IV. Course Content:					
A – Theoretical Aspect:					
Order	Units/Topics List	Learning Outcomes	Sub Topics List	Number of Weeks	contact hours
1	Principles of Scientific research and literature review	a 1, a2	- Overview of Drug Information and Evidence-Based Practice - Internet Sources of DI - Evaluating DI Resources - Accessing Quality DI Resources	1	2
			- Research Design and Methods	2	4
			- Principles of Evidence-Based Medicine (EBM)	1	2
			- Evaluating Randomized Controlled Trials	2	4
			- Evaluating Clinical Literature: An	1	2

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			Overview		
2	Midterm Exam	a 1, a2		1	2
3	Statistical Analysis Principles and Methods	a 1, a2, b1, b2	- Basic Statistical Concepts	2	4
			- Bivariate Analysis and Comparing Groups	1	2
			- Logistic Regression and Survival Analysis	1	2
			- Sample Size and Power Analysis	1	2
4	Systematic Review and Meta-Analysis	b 1, b2, d1, d2	- Evaluation of Systematic Review and Meta-Analysis	1	2
5	Applications of Drug Literature	b1, b2, d1, d2	- Application of evidence for selected cases	1	2
6	Final exam	a 1, a2, b1, b2, d1		1	2
Number of Weeks /and Units Per Semester				16	32

V. Teaching Strategies of the Course:

- Lectures
- Discussion
- Assignments
- Seminar
- Cases presentation

VI. Assessment Methods of the Course:

- Assignments
- Quiz
- Exam

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VII. Assignments:

No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1	Assignment 1: Describe the types of literature references	a1, a2	Week 3	5
2	Assignment 2: Apply drug literature for managing selected cases of DM type 2.	a1, a2, b1, b2, d1, d2	Week 12	5
Total				10

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	Week 3-12	10	10%	a 1, a2, b1, b2, d1
2	Quiz 1	Week 6	5	5%	a 1, a2
3	Midterm Exam	Week 8	10	10%	a 1, a2
4	Quiz 2	Week 12	5	5%	a 1, a2, b1, b2, d1
5	Final Exam	Week 16	70	70%	a 1, a2, b1, b2, d1
Total			100	100%	

IX. Learning Resources:

- Written in the following order: (Author - Year of publication - Title - Edition - Place of publication - Publisher).

1- Required Textbook(s) (maximum two).

1. Arlene Fink, 2013. How to Conduct Surveys: A Step-by-Step Guide, 5th, 978-1452203874
2. Beth Dawson, Robert G. Trapp, 2004. Basic & Clinical Biostatistics, 4th, 978-0071410175

2- Essential References.

1. Rajender R. Aparasu and John P. Bentley, 2014. Principles of Research Design And Literature Evaluation, 1st. 978-1284038798
2. Gordon Guyatt; Drummond Rennie; Maureen O. Meade; Deborah J. Cook. 2014, Users' Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice, 3rd, 978-0071790710
3. Gordon Guyatt; Drummond Rennie; Maureen O. Meade; Deborah J. Cook, 2015. Users' Guide the Medical Literature: Essentials of Evidence-Based Clinical Practice3rd, 978-007179415

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	4. Trisha Greenhalgh, 2014. How to Read a Paper: The Basics of Evidence-Based Medicine, 5 th 1118800966
	5. Robert Ed Diconzo, 2011. Clinical Pharmacist's Guide to Biostatistics and Literature Evaluation 978-1932658781
3- Electronic Materials and Web Sites etc.	
	- Up-to-date
	- https://druginfo.nlm.nih.gov/drugportal/drugportal.jsp

X. Course Policies: (Based on the Uniform Students' By law (2007))

1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
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7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

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Second Part of Course Specification

Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of **Drug Information and Evidence-Based Practice**

Course No. (02.02.232)

2022/2023

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Prof. Ali Alkaf	Dr. Abdulelah Thabet	Dr. -----	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

I. Information about Faculty Member Responsible for the Course:								
Name of Faculty Member:	Dr. Abdullelah Thabet		Office Hours					
Location & Telephone No.:								
E-mail:			SAT	SUN	MON	TUE	WED	THU

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			Lecture	Exercise	
		1	1	--	--
15.	Study Level/ Semester at which this Course is offered:	5 th Level / 1 st Semester			
16.	Pre –Requisite (if any):	Pharmacology-III			
17.	Co –Requisite (if any):	None			
18.	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm. D.			
19.	Language of Teaching the Course:	English			
20.	Study System:	Semester based System			
21.	Mode of Delivery:	Full Time			
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23.	Prepared by:	Prof. Ali Alkaf			
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