**King Saud University**

**College of Pharmacy**

**Medication therapy management-2**

**Course Syllabus**

**I. GENERAL INFORMATION**

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| **Course Number:** | PHCL 492 |
| **Course Title** | Medication therapy management-2 |
| **Lecture Hours Per Week** | 2 |
| **Credit Hours Per Semester** | 2 (2+0) |
| **Admission Particulars** | **Pre-requisites:** Medication therapy management-1-PHCL 436**Co-requisites:** None |
| **Course Director:** | **Dr. Mansour Almetwazi, BScPharm, PharmD, PhD.**Assistant professor, clinical pharmacy department **Office Location:** 1A201**Phone:** 00966114698081**Email:** mmetwazi@ksu.edu.sa **Office hours:** by appointment**Dr. Lubna Aljafali , MSc, PhD.**Assistant professor, clinical pharmacy department **Office Location:** 3rd Floor, room 29**Phone:** 011 8052701**Email** :laljaffali@ksu.edu.sa **Office hours:** by appointment |
| **Clock hours & Locations:** | **Days and time:** Sunday 8:00 -10:00 AM**Male campus:** TBC**Female campus:** TBC |

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| II. PARTICIPATING FACULTY |
| Dr. Noha Alolaa MSc, PhDPosition: Assistant ProfessorOffice Location: 2nd Floor, room 212Phone: Email: nalaloola@KSU.EDU.SAOffice hours: by appointment. | **Yazed AlRuthia, Pharm.D., PhD.****Position:** Assistant Professor**Office Location:** 2nd Floor, room 212**Phone:**+966114677483**Email:** yazeed@ksu.edu.sa **Office hours:** by appointment |
| Bander AlBalkhi, Pham.D, Ph.DPosition: Assistant ProfessorOffice Location: 1A202Phone: +966114691878Email: bbalkhi@ksu.edu.sa Office hours: by appointment | **Dr. Tariq M. Alhawassi, BScPharm, MClinPharm, PhD.**Assistant professor, clinical pharmacy department **Office Location:** 1A229**Phone:** 00966114678707**Email:** tarriq@ksu.edu.sa **Office hours:** **by appointment** |

1. **COURSE DESCRIPTION**

This a 2 course series that introduce the Medication Therapy Management (MTMS) service to optimize therapeutic outcomes through appropriate drug use, enhanced patient understanding of appropriate drug use, increased patient adherence with prescribed drug therapies, and reduced risk of adverse events associated with drugs.

1. COURSE OBJECTIVES
2. Advocate the practice of Medication Therapy Management as an innovative solution for patient care among pharmacy students
3. Increase the students’ level to collaborate with patients and prescribers to resolve and analyze medication related complications and interactions
4. Participate in the pharmaceutical care system’s process for reporting and managing medication errors and adverse drug reactions.
5. **COURSE ABILITY OUTCOMES**

After studying this course, the student is expected to be able to:

1. Identify and report medication errors and adverse drug reactions to appropriate individuals and organizations (including institutional and federal).
2. Evaluate information obtained from adverse drug reaction and medication error reporting systems to identify preventable causes.
3. Recommend and implement actions to minimize the occurrence of adverse drug reactions and medication errors.
4. Communicate and collaborate with prescribers, patients, caregivers, and other involved health care providers to engender a team approach to patient care.
5. **RESOURCES**
6. Robert Wacher Understanding Patient Safety Mc Graw-Hill Professional 2007
7. Segal R Preventing medication Errors and improving drugs therapy outcomes; a management system approach CRC press 2003

**REQUIRED INSTRUCTIONAL MATERIALS:**

* All supplemental materials will be available to students electronically through blackboard. Class handouts and patient cases (when applicable) will be posted on the KSU blackboard server (<https://lms.ksu.edu.sa/>) at least 24 hours prior to the scheduled session date. It is the student responsibility to check the blackboard site regularly for any updates.
1. **COURSE POLICIES**
2. **ACADEMIC DISHONESTY/PLAGIARISM**
* Students are expected to demonstrate professionalism and honesty during this course. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating of information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Students found in violation of such policy are subjected to disciplinary actions as per University Policy.
* Please read the manual of study and tests for undergraduate students and operational rule

 (لائحة الدراسة والاختبارات للمرحلة الجامعية والقواعد التنفيذية المعتمدة) <http://dar.ksu.edu.sa/Regulations>

* Please read the manual of students rights and duties (لائحة تأديب الطلاب بجامعة الملك سعود) <http://dar.ksu.edu.sa/Regulationss>
1. **CLASS PARTICIPATION AND PROFESSIONALISM**
* It is expected that all students come to class prepared by completing where applicable all assigned readings, online homework, and other assignments before class and ready to actively participate in classroom activities. Faculty will clarify and expand on the reading material. Use of phones is prohibited during class.
1. **GUIDELINES FOR E-MAIL COMMUNICATION**
* E-mail is often perceived as an informal method of communicating, but some basic rules of style or etiquette are expected. In general, rules of common courtesy for interaction with people should be used for any situation and on the internet it is especially important where, for example, body language and tone of voice must be inferred.
1. **All emails should be sent from your KSU account** **ONLY**
2. Mail should have a subject heading which reflects the content of the message.
3. Your message should begin with an appropriate salutation, including the name of the person being addressed, and end with the full name of sender.
4. Use mixed case and proper punctuation.
5. Current e-mail addresses for all students must be maintained in the Blackboard system**.** Each student must edit this in the "Personal Information" section of "Tools". Faculty will not be able to contact you if your email address is not updated and you could miss important information about courses.
6. **Check your e-mail daily.** Most information and communication from instructors will come via e-mail or will be posted on Blackboard under announcements.
7. **Failure to check email/Blackboard may result in you missing important assignments and subsequently affect your grade.**
8. Direct your request to the appropriate person, as indicated below. Please note that discussion board posts are preferred whenever your questions do not involve personal matters to reduce the number of individual emails.
* **Questions concerning lecture content:**
* First, post your question on the **discussion board of Blackboard**. All faculty teaching in this course have access to blackboard and will reply to questions posted. Other students may have the same question that you have or may have the answer. Please allow adequate time for faculty to respond.
* Inquire if the faculty member teaching that lecture has office hours and try to attend.
* If neither of the above steps adequately answers your question, email the faculty member teaching that lecture.
* **General course questions or if you are unsure of where to direct questions**:
* Contact the Course Director if your question involves a personal matter. Post general course related questions on the **discussion board** dedicated to the overall course logistics.
* **DO NOT** send message to "All Instructors".
1. **ATTENDANCE AND EXCUSED ABSENCE**
* In the case of illness or prolonged absence, it is the student’s responsibility to notify the faculty member and/or the Course Director within 5 days from the first date of absence. Exceptions to the five day notification period are rare and can only be approved by the Vice Dean of Academic Affair. With acceptable documentation from a student, an official memorandum will be issued notifying faculty of an excused absence. In the case of a legitimate excused absence, course instructors will make all reasonable attempts to assist the student to satisfy requirements of the course.
* Students missing 25% or more on attendance are forbidden from setting in the final exam per University Policy.
* If a student missed a midterm exam for an **ELIGIBLE** reason, Student must submit proper documentation within 2 weeks of scheduled exam time to the faculty member and the course coordinator.
* For any missed exams, student should fill a make-up exam form (pick up from department secretary) and obtain the necessary signatures and approvals from faculty member, the course director and head of the department.
* The faculty member has the right to determine the method for make-up exam, which can be any of the following:
	+ Increasing the percentage of the remaining exams to cover the missed exam
	+ Assigning the final exam a higher percentage to cover the missed exam for that student
	+ A make-up exam (the exam will be based on short answer questions)
	+ If the final is cumulative, the section relating to the missed examination material can be used as the grade for that missed exam.
1. **EXAMINATION AND GRADING CRITERIA**
2. Two midterm exams; mostly composed of multiple choice questions and true and false. Topics for each midterm and final are shown in the course schedule.
3. ASSIGNEMENTS & SUBMISSION
* Late assignments/homework will be penalized by 15% reduction in grade per day late.
* Assignments is based on each topic is according to each topic instructor.
1. **STUDENT PROJECT** (external guideline will be given)

Each student will team with a maximum of two. The team will present one of the medication safety topic provided in an innovative way to the audience. Each team will have a booth to present their poster or 3D model.

The project will be presented during the medication safety day. The day will be during week 8 (11-17 March). This event aims to raise awareness about medication safety through informing the audience about the factors contributing to medication safety and the pharmaceutical care system’s process for reporting and managing medication errors and adverse drug reactions.

**Learning outcomes**

1. Improve student level of communication and interactions with other healthcare professionals/students.
2. Increase students’ knowledge through learning by teaching others.
3. Increase students level of searching and presenting knowledge in an innovative way.
4. Improve Students team work ability
5. Expose students to organizing a scientific event

For more details, please contact course coordinators.

1. **GRADE DISTRIBUTION**

|  |  |  |
| --- | --- | --- |
| **Midterm (two midterms)** | 30 (15X2) | 30% |
| **Assignments and Participation** | 10 | 10% |
| **Project**  | 20 | 20% |
| **Final Exam** | 40 | 40% |
| **Total** | **100** | **100%** |

1. **CONFLICT RESOLUTION:**
* Any issues related to this course teaching, examinations and grading should be resolved with the course instructor promptly to ensure healthy learning atmosphere.
* Unresolved matter should be directed to the course coordinator. If matter is not yet resolved, please direct your complaint to the department head/Vice Head.
1. **CHANGE IN THE COURSE SYLLABUS OR GRADE DISTUBITION:** students will be notified with any changes to the course syllabus or grade distribution.
2. **GRADING SCALE:** grades will be earned based on KSU grading policy. the following scale:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Letter Grade | Score Achieved |  | Letter Grade | Score Achieved |
|  A+ | > 95% |  |  C+ | 75 - 79.99 % |
| A | 90 - 94.99 % |  | C | 70 - 74.99 % |
|  B+ | 85 - 89.99 % |  |  D+ | 65 - 69.99 % |
| B | 80 - 84.99 % |  | D | 60- 64.99 % |
|  |  |  | F | < 60% |

1. **COURSE SCHEDULE**

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| --- | --- | --- | --- | --- |
| Week# | Date Hijri | Date Gregorian | Topic of lecture | Presenter |
| **Part I: Introduction** |
| Week 1 | 4 Jum I | 21 Jan | Introduction  | MM/LJ |
| Week 2 | 11 Jum I | 28 Jan | Importance and Prevalence of Medication Safety   | TA/LJ |
| Project announcement Date 31/January/2018 |
| Week 3 | 18 Jum I | 4 Feb | Medication Use Process/System approach in medication use and safety/Human factors framework as an example of system approach | BB/LJ |
| **Part II: Adverse Drug Events (ADEs)** |
| Week 4 | 25 Jum I | 11 Feb | ADEs: Overview, Culture of Safety & Classification, Reporting ADE | MM/LJ |
| Project selection, submission of group names and project title, short proposal 15/February 2018  |
| Week 5 | 2 Jum II | 18 Feb | ADE Detection Tools: Observation, Trigger tools  | YR/LJ |
| Week 6 | 9 Jum II | 25 Feb | Root Cause Analysis  | YR/LJ |
| Week 7 | 16 Jum II | 4 Mar | Midterm Exam 1 ( to be confirmed later) | Topics WK 2, 3, &4 |
| **Part III: Medication Error Prevention**  |
| Week 8 | 23 Jum II | 11 Mar | Non Technology Interventions  | NO |
| Project presentation 11-17 March  |
| Week 9 | 1 Raj | 18 Mar | Technology Interventions | NO |
| Week 10 | 8 Raj | 25 Mar | Prescribing, Dispensing & Administration Errors | MM |
| Week 11 | 15 Raj | 1 Apr | Patient Role in Preventing Medication Errors Patient Safety Goals  | BB |
| Week 12 | 29 Raj | 8 Apr | Medication safety officer- Role of PharmacistResearch in Medication Safety | GS |
| Week 13 | 22 Raj | 15 Apr | Midterm Exam 2 ( to be confirmed later) | Topic WK 5, 6, & 8 |
| Week 14 | 6 Sha | 22 Apr | Research in Medication Safety | TA |
| **Final**  |  |  |  | **Topic WK 8, 9, 10, 11,12, & 14** |

MM: Dr.Mansour Almetwazi; TA: Dr. Tariq Alhawassi; LJ: Dr.Lubna Aljafali; NO Dr. Noha Alolola BB: Dr. Bander Balkhi; HM; YR: Dr. Yazeed Alruthia; GS: Guest Speaker

**Course Binding Agreement (PHCL 492)**

The Course binding agreement has to be signed by each student and returned through the class leader to the course instructor before the third lecture. *Failure to submit this paper will attest to the student had read and agreed on the information contained therein*.

“I have read this syllabus, understand its implications (and have sought clarification of those parts that were unclear to me), and will abide by it.I understand that the course coordinator has the right to make alterations to the class and exam schedule as needed.”

Name of Student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

University ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Student: \_\_\_\_\_\_­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_