

Kingdom of Saudi Arabia
**The National Commission for Academic Accreditation &
Assessment**

COURSE SPECIFICATION

Revised March 2007

Course Specification

For Guidance on the completion of this template, please refer to Handbook 2 Internal Quality Assurance Arrangements

Institution	King Saud University
College/Department:	College of Pharmacy/ Clinical Pharmacy Department

A Course Identification and General Information

1. Course title and code	Introduction to Drug and Poison Information (PHCL 328)
2. Credit hours: 2 hours (0+2)	
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs)	Bachelor in Pharmaceutical Sciences Doctor of Pharmacy
4. Name of faculty member responsible for the course	<u>Lecture Instructors:</u> Pharm D holders <u>Teaching Assistant:</u>
5. Level/year at which this course is offered	6th level
6. Pre-requisites for this course (if any):	PHCL 311
7. Co-requisites for this course (if any)	NA
8. Location if not on main campus	NA

B Objectives

1. Summary of the main learning outcomes for students enrolled in the course.

Upon the successful completion of this course, students should be able to:

1. Identify and list different types of information resources available.
2. Discuss the advantages and disadvantages of the tertiary, secondary, and primary literature.
3. Develop critical understanding of the strengths and limitations of these resources (scope, type of information, method of access, structure, and application of frequently used drug information tertiary resources.)
4. Understand the different secondary databases, the search strategy and article citation and retrieval process.
5. Demonstrate proficiency in the use of computerized information databases
6. Understand and differentiate the type of information cited in a biomedical journal (original article, review article, case report, editorial, etc)
7. Conduct a systematic search of the tertiary, secondary, and primary literature in order to retrieve appropriate drug information to answer a specific request
8. Evaluate online drug information sites for appropriateness and quality.
9. Formulate a drug information response based on the requestor's level of understanding
10. Develop sufficient communication skills through verbal and written activities
11. Demonstrate sufficient skills to perform appropriate calculations.
12. List literature resources utilized to manage poison cases.
13. Understand basic principles when managing poison cases.
14. Understand other activities performed by drug information pharmacist (drug evaluation, DUE, ADR reporting, DI newsletter, etc

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

- **course contents is/will be periodically reviewed by the instructors.**

- **readings and required links is/will be continuously updated by instructors**
- **Assigned patient cases is/will be continuously updated. Utilizing level of difficulty of the cases to develop students skills.**
- **Assessment strategies will be continuously updated**
- **Web-based course evaluation survey will be utilized**
- **Future plans to consider an e-learning platform such as Blackboard to enhance the teaching-learning process and communication.**

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

This course explores the fundamental aspects of drug information, the myriad of drug literature and drug information systems. It is designed as an introductory course to teach the student the basic principles of drug information pertaining to retrieval. It is designed to help students understand the types of drug information available and what sources of information are appropriate to use in a variety of situations.

1 Topics to be Covered		
Topic	No of Weeks	Contact hours
Introduction to Drug & Poison Information services: Introduction to the principles and concepts of drug information, requirements of DI, role of pharmacist as a drug information expert	1	3
Drug Information resources: Types of information literature: primary, secondary, tertiary, databases, online information	1	3
Systematic approach to Drug information request	2	3
Drug information resources: Tertiary drug information resources: general and specialized textbooks, electronic databases	2	3
Drug Information resources: Secondary drug information resources: IDIS, IPA, PubMed, OVID	2	3
Drug Information resources: Primary drug information resources	1	3
Drug information resources: Online Drug Information: example and how to evaluate	1	3
Medication Errors,	1	1.5
EBM	1	1.5
Poison Information	1	1.5
Drug information resources: Health information for patients and consumers How to keep up!!	1	1.5

2 Course components (total contact hours per semester):			
Lecture: 14 hours/semester	Tutorial: Lab 2hrs/week (28 hrs/semester)	Practical/Fieldwork/Internship:	Other:

3. Additional private study/learning hours expected for students per week. (This should be an average :for the semester not a specific requirement in each week)
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Students are expected to put 2hr/week towards successful completion of this course goals and objectives.

4. Development of Learning Outcomes in Domains of Learning

For each of the domains of learning shown below indicate:

- A brief summary of the knowledge or skill the course is intended to develop;
- A description of the teaching strategies to be used in the course to develop that knowledge or skill;
- The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.

a. Knowledge

Description of the knowledge to be acquired

- **Skilfully utilize the appropriate type of literature resource based on requestor status**
- **Understand the advantages/disadvantages of different resources when selecting to answer a question**

(ii) Teaching strategies to be used to develop that knowledge

- **Student attendance is required to fulfil course goals and objectives.**
- **Lectures.**
- **Lab: during the lab period students will answer 1-2 DI requests/lab. Each lab will utilize different literature resource(s)**
- **Group Project**

(iii) Methods of assessment of knowledge acquired

- **Midterms**
- **Quizzes**
- **Role playing: taking phone requests**
- **assignments**

b. Cognitive Skills
<p>(i) Cognitive skills to be developed</p> <p>Students should be able to:</p> <ul style="list-style-type: none"> • Recognize the different type and scope of literature resources • Recognize the need and the status of the caller
<p>(ii) Teaching strategies to be used to develop these cognitive skills</p> <ul style="list-style-type: none"> • Lectures: teaching students how to select the appropriate drug therapy for the right patient • Lab sessions are tailored to introduce case scenarios that applies to what is learned during lectures. • Question and answer session after each lab to discuss the various DI questions they answered • Role playing
<p>(iii) Methods of assessment of students cognitive skills</p> <ul style="list-style-type: none"> • Criteria based evaluation • Grading of weekly DI requests • Midterms, quizzes and exams
c. Interpersonal Skills and Responsibility
<p>(i) Description of the interpersonal skills and capacity to carry responsibility to be developed</p> <ol style="list-style-type: none"> 1. The pharmacy student should be able to communicate the major points necessary to answer a drug information question according to the status of the caller 2. The students should be able to communicate such answer both oral and in written form 3. Student is responsible to keep punctual attendance of classes and laboratory sessions 4. Student will take responsibility to engage in class discussion during lectures/labs 5. Students will take the responsibility to solve the given assignment on their own 6. Students will be responsible to submit project/assignments using the proper format. 7. Students is responsible to submit their case write up on time. 8. Students will act responsibly and ethically in carrying out assignments/projects as a team 9. Students will take the responsibility to utilize both assigned and recommended readings to help solve their assignment. 10. Students will take the responsibility to learn to manage their time 11. Students will take the responsibility to develop the necessary skills to communicate, listen, negotiate, and evaluate their strengths and weaknesses as members of a team.
<p>(ii) Teaching strategies to be used to develop these skills and abilities</p>

- **Taking attendance and alerting students who missed classes.**
- **Discussion on the proper documentation of a DI response through weekly requests**
- **Students are to work in pairs the expectations of the students when working as a team was discussed.**
- **Students should be given the criteria for assignment/project evaluation.**
- **Students to present the result of their project in front of class, instructor, and any invited guest.**
- **Students to participate in objective evaluation of their class-mate presentations.**
- **Students will answer a phone call and collect caller and patient related data**

(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility

1. **Class attendance of students at the beginning of the lecture/lab is recorded.**
2. **Recording of submission of assignment, lab reports and the grades.**
3. **Grading of write up of projects and assignment.**
4. **Performance on midterms and final exams are evidence of the student's ability to recollect and synthesize information**
5. **Instructor's/TA assessment of student's performance during a DI request**
6. **Instant feedback from instructor/TA**
7. **Exam**

d. Communication, Information Technology and Numerical Skills
<p>(i) Description of the skills to be developed in this domain.</p> <ul style="list-style-type: none"> • Ability to use of computer in producing case write up report and any other assignment. This include Word and PowerPoint applications. • Ability to write reports in proper English • Ability to present an oral presentation in proper English • Ability to search for drug information on the web
<p>(ii) Teaching strategies to be used to develop these skills</p> <ul style="list-style-type: none"> • Each student is to perform a search in Medline for an assigned question • Group of students should utilize different online drug information sites to answer their group project. • Students should outline their search strategy when presenting the projects.
<p>(iii) Methods of assessment of students numerical and communication skills</p> <ul style="list-style-type: none"> • Criteria based evaluation of their projects and PubMed question • Instant feedback on write up and presentation. •
e. Psychomotor Skills (if applicable)
<p>(i) Description of the psychomotor skills to be developed and the level of performance required</p> <p>1. NA</p>
<p>(ii) Teaching strategies to be used to develop these skills</p> <p>1. NA</p>
<p>(iii) Methods of assessment of students psychomotor skills</p> <p>a. NA</p>

5. Schedule of Assessment Tasks for Students During the Semester			
Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1	Midterm Exam 1	6	20
2	Midterm Exam 2	12	20
3	Lab Activities		50
	a. Group Project: 7.5 points	12	7.5
	b. Individual assignment (PubMed):	11	7.5
	c. Assignment three (call demo and write up):	10	10
	d. DI weekly requests:	Weekly	25
8	Final DI Question	14	10

D. Student Support

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

- **Teaching assistant were utilized to provide support to students during lab sessions**
- **Each faculty and teaching assistant is required to provide their contact information and to post their office hours for the students who need consultation and advice.**
- **Faculty to provide alternate method of contact such as emails, appointment if office hours was not sufficient.**

E Learning Resources

1. Required Text(s)
2. Essential References
<p>a. Instructor notes and handouts</p> <p>b. Materials submitted in the lab</p> <ul style="list-style-type: none"> ○ Malone PM et al. <i>Drug information: a guide for pharmacists</i>. 3rd ed. NY: McGraw-Hill, 2008. (http://books.mcgraw-hill.com/medical/druginfo/)

- Galt KA: Clinical skills program drug information series, module 1. Analyzing and recording a drug information request. Bethesda, MD: American Society of Hospital Pharmacists; 2000. (Copies of the required chapters are available).

3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List)

- Will posted on Faculty homepages.

4-.Electronic Materials, Web Sites etc

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

- PubMed Tutorial website:
<http://www.nlm.nih.gov/bsd/disted/pubmed.html>
- IDIS tutorial website:
<http://www.uiowa.edu/~idis/webtutorial/contents.htm>

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Lecture rooms, laboratories, etc.) <ul style="list-style-type: none">• Lecture and lab rooms equipped with a board, computer, data projector and internet connection.• Lecture rooms should be large enough to accommodate 50 students
2. Computing resources <ul style="list-style-type: none">• Laptop computer• Data show
3. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list) <ul style="list-style-type: none">• Table/stand to put data show/computer on• Enough, proper AC cord and plugs.

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching <ul style="list-style-type: none">• Student course evaluation at the conclusion of the course.• Students to address issues with instructor at any time during the semester.
2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department Teaching assistant to assess students ability to apply knowledge from lectures and feedback on midterm exams.
3 Processes for Improvement of Teaching <ul style="list-style-type: none">• Periodical review on course deficiencies based on the student evaluation, faculty input, course file, and program assessment.• Feedback from students who passed the course to identify any deficiencies in students' ability in applying knowledge and the use of course materials.• Teaching method will focus on students' learning and on course learning outcomes.• Regular meetings where problems are discussed and solutions given• Discussion of challenges in the classroom with colleagues and supervisors
4. Processes for Verifying Standards of Student Achievement (eg. check marking by an independent faculty member of a sample of student work, periodic exchange and remarking of a sample of assignments with a faculty member in another institution) <ul style="list-style-type: none">• Check marking of a sample of examination papers either by another faculty member• Students who believe they are under graded can have their papers checked by a second

reader.

- **Review of samples of student work in this course to check on the standard of grades and achievements.**
- **Future plans to arrange with another institution to have two common test items included on an exam and compare marks given**
- **Have faculty member from a reputable university to evaluate the course material and the students' work to compare the standard of grades and achievements with those at his/her university.**

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

- **Compare syllabi and course description with other universities (including those on the net)**
- **Once every semester, meetings of faculty members to discuss improvement**
- **Engage with the University effort to conduct self- assessment and prepare for external assessment by the invited authority**
- **Incorporate feedback received from student's, faculty and external assessment authority in further improvement in the course syllabus, teaching method, and delivery of course materials.**