Syllabus: Informatics (#131702577)
First Semester 2021 /2022

COURSE INFORMATION	
Course Name: Informatics **(face-to-face education)** **Semester:First** **Department: Clinical Pharmacy & Pharmacy Practice** **Faculty: Pharmaceutical Sciences**	**Course Code:** 131702577 **Section: per semester** **Core Curriculum**: **2013 Study Plan**
Day(s) and Time(s): :per semester **Classroom: Pharmaceutical Sciences**	**Credit Hours:** 2 **Prerequisites**: 131702566

COURSE DESCRIPTION

This 2 credit hours course introduces students to the increasing importance of drug information. Provides students with skill and ability to obtain, manage, evaluate, and use information across different settings (i.e. community pharmacy, hospitals, pharmaceutical companies and educational institutions) and various levels (i.e. general resources and specific case oriented resources). Furthermore, this course aims to encourage students to lead innovations and attempts to support National Jordanian Health Information Care Systems for building better applications, similar to informatics systems in U.K., USA., and other developed countries.

DELIVERY METHODS

The course will be delivered through a combination of active learning strategies. These will include:

- PowerPoint lectures and active classroom-based discussion
- Collaborative learning through small groups acting in an interdisciplinary context.
- Relevant films and documentaries
- Video lectures
- E-learning resources: e-reading assignments and practice quizzes through Model and Microsoft Team
- Workshops , and brain storming .

The course will be delivered through a combination of active learning strategies. These include:

- PowerPoint lectures and active classroom-based discussion
  Students will be encouraged to participate and be actively involved in the learning process.

Lectures will start with questions to inquire about the students' prior knowledge of the topic. These questions will also be repeated at the end of the lecture to gain insight into the students' competences (to verify whether students have understood the topic). During delivering the lecture presentation, time will be given to allow students to reflect about what they have learnt and think in and discuss some examples of short case studies.

- Relevant speakers
- workshops lectures

FACULTY INFORMATION

Name	**Dr Saba Madae'en**
Academic Title:	**Assistant Professor**
Office Location:	**Third Floor**
Telephone Number:	**Extension: 3416**
Email Address:	**saba@hu.edu.jo**
Office Hours:	**Per semester** ***Please send an e-mail (saba@hu.edu.jo) to meet at any other time.***

REFERENCES AND LEARNING RESOURCES

Reference 1: Drug Information: A Guide for Pharmacists (5th Edition, 2014). By Patrick Malone, et.al., Published by McGraw-Hill Education. ISBN 978-0-07-180434-9.

Reference 2: Electronic Health Record: Standards, Coding Systems, Frameworks, and Infrastructures (2013). By Pradeep Sinha, et.al., Published by Published by John Wiley & Sons, Inc., Hoboken, New Jersey, USA. ISBN 978-1-118-28134-5.

Reference 3: Drugs in Jordan plus basic pharmacological review (2nd Edition 2013). By Mohanad Odeh. Published by Jordanian Pharmacist Association. Deposit number at Jordanian National Library 2013/09/3442.

Reference 4: Drug information resources at community pharmacies in Amman, Jordan. (2009), by Mayyada Wazaify, et.al., International Journal of Pharmacy Practice 2009; 17: 151–155.

Online References:

Reference 5: http://jpa.org.jo/page/pharmacy-profession-jordan

Reference 6: http://www.jfda.jo/

Reference 7: http://www.jrms.mil.jo/

Reference 8: http://www.moh.gov.jo/en/

STUDENT LEARNING OUTCOMES MATRIX

An alignment matrix of the **program** ILOs of the Bachelor of Pharmacy at The Hashemite University, the **course** ILOs and knowledge, skills and competencies as mentioned in the Jordan National Qualifications Framework (JNQF)

Field according to (JNQF)	Required to achieve (according to (JNQF)	Core curriculum learning outcomes	B.Sc. Pharmacy Program ILOs	Course Objectives	Course Student ILOs						Assessment Method
					A	B	C	D			
Knowledge	A systematic understanding of the theories, concepts, principles and circulations related to the field of learning, some of which are within the limits of the latest scientific findings	Foundational Knowledge	Learner	1- Drug information resources. 2- Critical appraisal of litreature, and litreature types, primary , secondary , tertairy . 3- Study health information systems and coding in USA and in jordan 4- Diffrentiate information system requirements in different health care settings.							Exams Quizzes
Skills	Mastering the skills and tools required to solve complex problems in a specialized field of study	Essentials for Practice and Care Approach to Practice and Care	Caregiver Manager Promoter Provider		1- Deal with real treatment realated problems and						Exams Quizzes Workshops and assignments

			Creative Thinker & Problem-Solver Educator Advocate Collaborator Includer Communicator		use appropriate technology to solve							
	Demonstrate specialized and conceptual skills in the field of study				2- Compare Applications Distinguish between the uses, implementation difficulty, and overall level of adoption of various medication–management information technology applications including, for example, the electronic medical record (EMR), computerized prescriber order entry (CPOE), clinical decision support (CDS), ePrescribing (e–Rx), computerized intravenous pumps, bar coding at the point of care (BPOC), and automated dispensing machines (ADMs)						Exams Quizzes Workshops and assignments
	Practice evaluation in planning, design, technical and/or supervisory functions related to products, services or processes											
Competencies	Management of activities and projects	Personal & Professional Development Pharmaceutical Product Expert	Self-aware Leader Innovator Professional		1. Develop and apply communication skills in class room discussions							Exams Quizzes Workshops and assignments

			Manufacturer			regarding lecture material or questions 2. Participate actively in classroom debate, assignments and speech deliveries 3. Conduct library research, personal interviews, and other information–gathering activities to inform speeches. 4. Gain control and command over speech anxiety.						
	Take responsibility for decision-making in work or study contexts				1.	Collaborate with small group team members to assess and argue for or against certain l issue using the appropriate						Exams Quizzes Workshops and assignments

						scientific terminology.						
					2.	Demonstrate leadership skills by mastering effective interpersonal and intercultural tolerance and inclusiveness in communication .						
					3.	Establish the basic required knowledge in the field of informatics..						
	Take responsibility for group work and work effectively with peer guidance				1.	Communication skills, covering both written and oral communications.						Exams Quizzes Workshops and assignments
					2.	Problem–solving skills, relating to qualitative and quantitative information, extending to situations						

						where evaluations have to be made on the basis of limited information and time.						
					3.	Study skills needed for continuing professional development.						
					4.	Interpersonal skills, relating to the ability to interact with other people and to engage in team-working.						
					5.	Time-management and organizational skills, as evidenced by the ability to plan and implement efficient and effective modes of working weather on exams or on						

					homework.						
	Transfer and apply diagnostic and creative skills in a range of contexts				1. Apply creative and critical thinking skills in and outside class room						

ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

Special Needs Section:

Tel: **00962-5-3903333** **Extension:** **4209**

Location: **Students Affairs Deanship/ Department of Student Welfare Services**

Email: **amalomoush@hu.edu.jo**

amalomoush@staff.hu.edu.jo

COURSE REGULATIONS

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance*. It is a student's responsibility to monitor the frequency of their own absences. **Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.**

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

On average, students need to spend 15 hrs of study and preparation weekly. At the beginning of the lectures, be on time and don't leave before the end of the lecture without an accepted excuse. **If you missed a class, it is your responsibility to find out about any announcements or assignments you have missed.** For any clarification, please communicate your instructor at her posted office hours or by appointment. Listen well to the lecture, if you have a question, ask your instructor. You will find the course material at the course team after the lecture.

Sharing of course materials is forbidden. No course material including, but not limited to, course outline, lecture hand-outs, videos, exams, and assignments may be shared online or with anyone outside the class. Any suspected unauthorized sharing of materials, will be reported to the university's Legal Affairs Office. If a student violates this restriction, it could lead to student misconduct procedures.

Plagiarism

Plagiarism is considered a serious academic offence and can result in your work losing marks or

being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviours that compromise his/her own integrity as well as that of The Hashemite University.

Plagiarism includes the following examples, and it applies to all student assignments or submitted work:

- **Use of the work, ideas, images or words of someone else without his/her permission or reference to them.**
- **Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.**
- **Misrepresentation of the sources that were used.**

The instructor has the right to fail the coursework or deduct marks where plagiarism is detected

Late or Missed Assignments

In all cases of assessment, students who fails to attend an exam, class project or deliver a presentation on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a fail grade for this part of the assessment.

- Submitting a term paper on time is a key part of the assessment process. Students who fail to submit their work by the deadline specified will automatically receive a 10% penalty. Assignments handed in more than 24 hours late will receive a further 10% penalty. Each subsequent 24 hours will result in a further 10% penalty.
- In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with University regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

Missed Assessments

In all cases of assessment, students who fails to attend an exam on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a failure .grade for this part of the assessment

• In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with university regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

Cheating

Cheating, academic disconduct, fabrication and plagiarism will not be tolerated, and the university policy will be applied. Cheating policy: The participation, the commitment of cheating will lead to applying all following penalties together:

- Failing the subject, he/she cheated at
- Failing the other subjects taken in the same course
- Not allowed to register for the next semester
- The summer semester is not considered as a semester

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment as listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

Students will be graded through the following means of assessment:

Assessment	Grade Weighting	Deadline Assessment
First Exam	25%	~ 6th week
Second Exam	25%	~ 10th week
Workshops	10%	12th week
Final Exam	40%	~ 15th /16th week

Description of Exams

Test questions will predominately come from material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. Exam will consist of a combination of multiple choice, short answer, match, true and false and/or descriptive questions.
Homework: Will be given for each chapter, while the chapter in progress you are supposed to work on them continuously and submit in next lecture when I finish the chapter.
You are also expected to work on in-chapter examples, self-tests and representative number of end of chapter problems. The answers of self-tests and end of chapter exercises are given at the end of the book.

Quizzes: Unannounced quizzes will be given during or/and at the end of each chapter based upon the previous lectures. It will enforce that you come prepared to the class.

No make-up exams, homework or quizzes will be given. Only documented absences will be considered as per HU guidelines.

Description of Exams

Test questions will predominately come from material presented in the lectures and the lectures themselves. Semester exams may be conducted during the regularly scheduled lecture period. Exam may consist of a combination of multiple choice, short answer, match, true and false, and/or descriptive questions.

No make-up exams will be given. Only documented absences will be considered as per HU guidelines. Make-up exams may be different from regular exams in content and format.

Grades are not negotiable and are awarded according to the following criteria:

Letter Grade	Description	Grade Points
A+	Excellent	4.00
A		3.75
A-		3.50
B+	Very Good	3.25
B		3.00
B-		2.75
C+	Good	2.50
C		2.25
C-		2.00
D+	Pass	1.75
D	Pass	1.50
F	Fail	0.00
I	Incomplete	-

WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

"Lecture hours and weeks are approximate and may change as needed"

Note: For Chem 101 sections with 2 lecture periods per week (S/T, M/W or T/R), one lecture period covers 1.5 lecture hours (80 minutes). The course content specifies the sections in chapters 1-10 of the textbook that will be included in quizzes, homework and exams.

"Lecture hours and weeks are approximate and may change as needed"

Note: For the 2 lecture periods per week (S/T, M/W), one lecture period covers 1 lecture hours (50 minutes). The course content specifies chapters of the textbook that will be included in exams.

Introduction	Introduction	**Week 1**	**1 lecture**
Topic 1	Drug information centers	**Week 2**	**2 lectures**
Topic 2	Drug Information definition , retrival of drug information	**Week3/4**	**4 lectures**
Topic 3	Evidence Based medicine	**Week 5**	**2 lectures**
Topic 4	Drug information coding	**Week 6**	**3 lectures**
Topic 5	Evidence based clinical practice guideline	**Week 7**	**2 lectures**
Topic 6	Investigational new drug application	**Week 8**	**2 lectures**
Topic 7	Drug informatics in hospital setting	**Week 9**	**2 lectures**
Topic 8	Classification of medical information	**Week 10**	**2lectures**

Topic 9	International experiences	**Week 11**	**2 lectures**
Topic10	***Hakim program***	***Week 12***	**2 lectures**
Topic 11	Royal medical information center	**Week 13**	**2 lectures**
University Final Exams		**Week 15**	