Course Specification of Clinical Pharmacy & Therapeutics I

I. Course Identification and General Information:							
1	Course Title:	Clinical Pharmacy & Therapeutics (I)					
2	Course Number & Code:	Ph2920					
3	Credit hours:	C.H				Total	
		Theoretical	Practical	Training	Seminar		
		2	2	-	-	3	
4	Study level/ semester at which this course is offered:	Fifth year, First Semester					
5	Pre –requisite (if any):	Pharmaceutical Care (2)					
6	Co –requisite (if any):	Fifth level/ First Semester					
7	Program (s) in which the course is offered:	Bachelor degree of pharmacy					
8	Department (s) in which the course is offered:	Pharmaceutics					
9	Language of teaching the course:	English					
10	Location of teaching the course:	Faculty of pharmacy – Sana'a University					
11	Prepared by:	Prof. Dr. Ahmed Mohamed Sabati					
12	Date of approval:						

II. Course Description:

The course deals with selected major disease states and their therapy, especially in the individualization of drug usages. The role of the pharmacist in the provision of optimal patient care through monitoring of patients drug therapy is emphasized.

Overall Aims of Course:

A- Giving knowledge about the patho-physiology of disease.
B- Explain the symptoms and complications of the diseases.
C- Analysis treatment aims and algorithms, drug interactions, dose calculations, side effects of drugs.
D- Describe the appropriate lifestyle modifications, patient awareness and counseling.
E- Solve the given case according to the correct therapeutic way.

III. Intended Learning Outcomes (ILOs) of the Course:

At the end of this course, the students will be able to:

1. Describe the principals of patho-physiology, symptoms and complications that relevant to diseases.
2. Recall knowledge about drugs and their uses therapeutically concerning their identities, safety, optimum use in medication and contraindications.
3. Recognize the lifestyle modifications, underlying causes and contributing factors in the development of disease.
4. Recognize the special considerations of populations required for designing a treatment plan.
5. Construct an appropriate monitoring plan to assess disease treatment.
6. Recognize recent researches, articles and advanced studies about treatment of diseases.
7. Correlate disease pathophysiology with their manifestations, investigations and physical examinations.
8. Solve the case studies according to the therapeutic way.
9. Interpret patient`s clinical data and features, including patient records held within practice settings.
10. Design and implement patient-specific plan, including monitoring parameters to solve & prevent drug related problems.
11. Evaluate critically observations and measurements, in terms of their significance and theory underlying them.
12. Give advises for the patients and others on the safe and effective use of medicines.
13. Apply acquired skills to diagnose the case studies precisely.
14. Interact effectively with patients, the public and health care professionals; includes communication both written and oral.
15. Solve the problem based on a given information like patient history.
16. Work independently or collaboratively as a teamwork member to prepare seminars/ presentations or write reports for criticizing of suitable drugs for each case.

IV. Intended Learning Outcomes (ILOs) of the Course:

(A) Knowledge and Understanding:

Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Knowledge and Understanding.

Program Intended Learning Outcomes (Sub- PILOs) in: Knowledge and Understanding		Course Intended Learning Outcomes (CILOs) in: Knowledge and Understanding	
After completing this program, students will be able to:		After completing this course, students will be able to:	
A1-	Recognize the principles of, clinical, social, behavioral, health and pharmaceutical sciences.	a1-	Describe the principals of patho-physiology, symptoms and complications that relevant to diseases.
A3-	Describe the general cellular, biochemical and physiological aspects of human body and recognize the pharmacokinetics, pharmacodynamics, disease pathophysiology and pharmacogenetic of therapeutic agents to provide pharmaceutical care and facilitate management of patient's medication, rationalize drug use and overall health needs.	a2-	Recall knowledge about drugs and their uses therapeutically concerning their identities, safety, optimum use in medication and contraindications.
		a3	Recognize the lifestyle modifications, underlying causes and contributing factors in the development of disease.
		a4-	Recognize the special considerations of populations required for designing a treatment plan.
		a5-	Construct an appropriate monitoring plan to assess disease treatment.
		a6-	Recognize recent researches, articles and advanced studies about treatment of diseases.

Teaching And Assessment Methods For Achieving Learning Outcomes:

Alignment of Learning Outcomes of Knowledge and Understanding to Teaching and Assessment Methods:

Course Intended Learning Outcomes (CILOs) in Knowledge and Understanding	Teaching strategies/methods to be used	Methods of assessment
completing this course, students will be able to:		

a1-	Describe the principals of patho-physiology, symptoms and complications that relevant to diseases.	Lectures methods , Computer based teaching and learning, group discussion, case study and tutorial	Oral Exam, Quizzes, Attendance, Participation, Short answers, reports, homework, and Written exam.
a2-	Recall knowledge about drugs and their uses therapeutically concerning their identities, safety, optimum use in medication and contraindications.		
a3	Recognize the lifestyle modifications, underlying causes and contributing factors in the development of disease.		
a4-	Recognize the special considerations of populations required for designing a treatment plan.		
a5-	Construct an appropriate monitoring plan to assess disease treatment.		
a6-	Recognize recent researches, articles and advanced studies about treatment of diseases.		

(B) Intellectual Skills:

Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Intellectual skills

Program Intended Learning Outcomes (Sub-PILOs) in Intellectual skills		Course Intended Learning Outcomes (CILOs) of Intellectual Skills	
After completing this program, students will be able to:		**After completing this course, students will be able to:**	
B2-	Categorize the synthetic and natural drugs according to their mechanism of action, systemic effect, therapeutic uses, contraindication and toxicity.	**b1-**	Correlate disease pathophysiology with their manifestations, investigations and physical examinations.
B4-	Plan a modern system for administration of medical foundations and merge the ethics to business during the drug marketing.	**b2-**	Solve the case studies according to the therapeutic way.
		b3-	

B5-	Interpret the prescriptions, patient and clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution, to develop the health care.		Interpret patient`s clinical data and features, including patient records held within practice settings.

Teaching And Assessment Methods For Achieving Learning Outcomes:

Alignment of Learning Outcomes of Intellectual Skills to Teaching Methods and Assessment Methods:

Course Intended Learning Outcomes (CILOs) in Intellectual Skills.		Teaching strategies/methods to be used	Methods of assessment
After completing this course, students will be able to:		Lectures methods, Group Discussion, Problem solving sessions, brainstorming and Computer based teaching and learning	Oral Exam, Quizzes, Attendance, Participation, Short answers, reports, homework, and Written exam.
b1-	Correlate disease pathophysiology with their manifestations, investigations and physical examinations.		
b2-	Solve the case studies according to the therapeutic way.		
b3-	Interpret patient`s clinical data and features, including patient records held within practice settings.		

(C) Professional and Practical Skills:

Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Professional and Practical Skills

Program Intended Learning Outcomes (Sub-PILOs) in Professional and Practical Skills		Course Intended Learning Outcomes (CILOs) in Professional and Practical Skills	
After completing this program, students will be able to:		**After completing this course, students will be able to:**	
C4-	Provide patient-oriented pharmaceutical care by collaboration with other health care professionals to optimize therapeutic outcomes.	**c1-**	Design & implement patient-specific plan, including monitoring parameters to solve & prevent drug related problems.
C5-	Conduct research studies and utilize the results in different pharmaceutical fields.	**c2-**	Evaluate critically observations and measurements, in terms of their significance and theory underlying them.
		c3-	Give advice for the patients and others on the safe and effective use of medicines.

		c4-	Apply acquired skills to diagnose the case studies precisely.

Teaching And Assessment Methods For Achieving Learning Outcomes:

Alignment of Learning Outcomes of Professional and Practical Skills to Teaching and Assessment Methods:

Course Intended Learning Outcomes (CILOs) in Professional and Practical Skills		Teaching strategies/methods to be used	Methods of assessment
After completing this course, students will be able to:		Lectures methods Practical session, brainstorming, Tutorials, Seminars and Case study	Practical works, homework, practical exam and practical reports.
c1-	Design and implement patient-specific plan, including monitoring parameters to solve & prevent drug related problems.		
c2-	Evaluate critically observations and measurements, in terms of their significance and theory underlying them.		
c3-	Give advice for the patients and others on the safe and effective use of medicines.		
c4-	Apply acquired skills to diagnose the case studies precisely.		

(D) General / Transferable Skills:

Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: General and Transferable skills

Program Intended Learning Outcomes (PILOs) in General / Transferable skills		Course Intended Learning Outcomes (CILOs) in General / Transferable skills	
After completing this program, students will be able to:		**After completing this course, students will be able to:**	
D1-	Practice independent learning needed for continuous professional development	**d1-**	Interact effectively with patients, the public and health care professionals; includes communication both written and oral.
D4	Take responsibility for adaptation to change needs in pharmacy practice.	**d2**	Solve the problem based on a given information like patient history.
D5	Apply information and communication technology and working effectively in a team.	**d3**	Work independently or collaboratively as a teamwork member to prepare seminars/ presentations or write reports for criticizing of suitable drugs for each case.
		d4	Behave with an ethical attitude and approach.

Teaching And Assessment Methods For Achieving Learning Outcomes:

Alignment of Learning Outcomes of General and Transferable skills to Teaching and Assessment Methods:

Course Intended Learning Outcomes (CILOs) in General and Transferable Skills	Teaching strategies/methods to be used	Methods of assessment

After completing this course, students will be able to:		Small group discussions, Tutorials and Practical session	Homework and reports.
d1-	Interact effectively with patients, the public and health care professionals; includes communication both written and oral.		
d2	Solve the problem based on a given information like patient history.		
d3	Work independently or collaboratively as a teamwork member to prepare seminars/ presentations or write reports for criticizing of suitable drugs for each case.		
d4	Behave with an ethical attitude and approach.		

V. Course Content:

1 – Course Topics/Items:

a – Theoretical Aspect

Order	Topic List / Units	CILOs (symbols)	No. of week	Contact Hours
1	Introduction and definition of Clinical Pharmacy	a1, a2, d1-3	1	2
2	Interpretation of clinical laboratory tests	a1, b4, d1-3	1	2
3	Anemia's (Iron deficiency anemia)	a1-6, b1-3, c1, c4, d1-3	1	2
4	Anemia's (Megaloblastic and, Pernicious anemia	a1-6, b1-3, c1, c4, d1-3	1	2
5	Anemia's (Hemolytic anemia)	a1-6, b1-3, c1, c4, d1-3	1	2
6	Renal diseases (Nephritic syndrome)	a1-6, b1-3, c1, c4, d1-3	1	2

7	Renal diseases (Acute and Chronic renal failure	a1-6, b1-3, c1, c4, d1-3	1	2
8	Renal diseases (Urinary calculi)	a1-6, b1-3, c1, c4, d1-3	1	2
9	Liver diseases (Hepatitis)	a1-6, b1-3, c1, c4, d1-3	1	2
10	Liver diseases (Liver cirrhosis)	a1-6, b1-3, c1, c4, d1-3	1	2
11	Thyroid disorders (Hypothyroidism + Hyperthyroidism)	a1-6, b1-3, c1, c4, d1-3	1	2
12	Parathyroid disorders (Hypo- + Hyperparathyroidism)	a1-6, b1-3, c1, c4, d1-3	1	2
13	Peptic ulcer	a1-6, b1-3, c1, c4, d1-3	1	2
14	GERD	a1-6, b1-3, c1, c4, d1-3	1	2
Number of Weeks /and Units Per Semester			**14**	**28**

b- Practical Aspect:

Week	Case Study on	CILOs (symbols)	Number of weeks	Contact hours
1	Anemia's (Iron deficiency anemia)	c1, c2, c3, 4c	**1**	**2**
2	Anemia's (Megaloblastic and, Pernicious anemia	c1, c2, c3, 4c	**1**	**2**
3	Anemia's (Hemolytic anemia)	c1, c2, c3, 4c	**1**	**2**
4	Renal diseases (Nephritic syndrome)	c1, c2, c3, 4c	**1**	**2**
5	Renal diseases (Acute and Chronic renal failure	c1, c2, c3, 4c	**1**	**2**
6	Renal diseases (Urinary calculi)	c1, c2, c3, 4c	1	2

7	Anemia's (Iron deficiency anemia)	c1, c2, c3, 4c	1	2
8	Anemia's (Megaloblastic and, Pernicious anemia	c1, c2, c3, 4c	1	2
9	Liver diseases (Hepatitis)	c1, c2, c3, 4c	1	2
10	Liver diseases (Liver cirrhosis)	c1, c2, c3, 4c	1	2
11	Thyroid disorders (Hypothyroidism + Hyperthyroidism)	c1, c2, c3, 4c	1	2
12	Parathyroid disorders (Hypo- + Hyperparathyroidism)	c1, c2, c3, 4c	1	2
13	Peptic ulcer	c1, c2, c3, 4c	1	2
14	GERD	c1, c2, c3, 4c	1	2
Number of Weeks /and Units Per Semester			**14**	**28**

I. a-Teaching Strategies of the Course:

Lecture method, Group Discussion, Problem solving sessions, case study, Computer based teaching and learning, tutorials, brainstorming and Practical sessions.

b- Assessment Methods:

Quizzes, Attendance, Participation, Short answers, reports, homework, and Written exam
Practical works, practical exam and practical reports.

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

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning

					Outcomes (CILOs symbols)
1.	**Attendance, Participation and quizzes**	**All Weeks**	10	7%	a1-3,b1-2, c1, c4
2.	**Quizzes and Homework-assignments**	Sporadic through the semester	10	7%	a2-6, b3, c1, c4
3.	**Attendance, Practical Reports**	**All Weeks**	15	10%	c1-4
4.	**Practical mid-semester exam**	7th	15	10%	c1-4
5.	**Theoretical mid-semester exam**	9th	30	20%	a1-6, b1-3, c1, c4
6.	**Final Exam (theoretical)**	**16th**	50	33%	a1-6, b1-3, c1, c4
7.	**Final Exam (practical)**	**16th**	20	13%	c1-4
	Total		**150**	**100%**	

II. Students' Support:

Office Hours/week	Other Procedures (if any)

III. Learning Resource (MLA style or APA style)s:

1- Required Textbook(s) (maximum two)

1-Walker and Edwards (eds). **Clinical Pharmacy and Therapeutics**. 3rd edition (2003).

2- Recommended Readings and Reference Materials

	Terry L. Schwinghammer & Julia M. Koehler. **Pharmacotherapy Casebook:** A Patient-Focused Approach 7th edition 2009
3- Essential References	
	Course notes (lecture notes and practical notes) prepared by teacher of the subject.
4- Electronic Materials and Web Sites *etc.*	
	Websites in international network (internet
5- Other Learning Material:	
	-

II. Facilities Required:

1 - Accommodation:	- Well-equipped lecture halls with data show facilities, whiteboards, net connection, etc. - Well-equipped laboratories with all required equipment and reagents.
2 - Computing resources:	- Computer laboratory with internet facilities.

III. Course Improvement Processes:

1- Strategies for obtaining student feedback on effectiveness of teaching

- Student-based assessment of the effectiveness of teaching using a questionnaire designed by the Quality Assurance Unit at the end of the semester.
- Meeting with students and faculty (once per semester).

2- Other Strategies for Evaluation of Teaching by the Instructor or by the Department.

- Assessment of the course syllabus and contents by the teachers using a questionnaire designed by the Quality Assurance Unit of the university at the end of the semester.
- Regular meeting and discussion of the course content between the Head of Department and the teaching staff of the course (for theory and practice).

3- Processes for Improvement of Teaching.

	▪ Revision of the course specification and its teaching strategies every three academic years after consideration of all issues raised by the teachers and/or students during regular meetings and discussions. ▪ Exploring any possible defects in the course that might be encountered by the teaching staff and their mitigation in subsequent improved versions of course specification.
4- Processes for Verifying Standards of Students' Achievement	
	▪ Checking of a sample of students' work by an independent faculty member. ▪ Periodic exchange and check marking of a sample of students' assignments with a faculty member from another institution. ▪ Adoption of scoring rubrics to assess the students' achievement (both for ongoing or summative assessments). ▪ Regular follow-up of laboratory logbooks to assess the practical achievement of students.
5- Procedures for Periodically Reviewing of Course Effectiveness and Planning for Improvement	
	▪ Student rating and feedback ▪ Peer rating and feedback ▪ Regular meeting of the Curriculum Committee of the faculty.
6- Course Development Plans	
	▪ Conducting regular workshops for the staff for improving their course specification skills. ▪ Regular revision of course specification and syllabus items.

VIII. Course Policies: (including plagiarism, academic honesty, attendance etc)	
The University Regulations on academic misconduct will be strictly enforced. Please refer to ----------	
1	**Class Attendance:** ▪ Attendance of all lectures and practical sessions is required. Unexcused absence exceeding 25% of the lectures or practical sessions will disqualify the student from entering the final exam.
2	**Tardy:**

	- Roll will be called in the very beginning of each lecture and practical class. Retardation for more than three weeks without a reasonable excursion, the student involved shall not be allowed to attend the class any longer and consequently shall be considered to be absent.
3	**Exam Attendance/Punctuality:** ▪ Exam attendance is obligatory unless being excused by the department and faculty. ▪ Absence from assignments or exams will be dealt with according to the general policy of the university.
4	**Assignments & Projects:** ▪ Assignments: Written and oral; Laboratory logbook signed by the responsible demonstrator. ▪ Projects: Not applicable.
5	**Cheating:** ▪ Punishment of cheating will be according to the general policy of the university in this respect.
6	**Plagiarism:** ▪ Plagiarism in written essays, reports, etc. is not accepted, and students who plagiarize the works of others will be punished according to the general policy of the university.
7	**Other policies:** ▪ General policies of the Students' Affairs of the University and the Quality Assurance Unit.

Course Plan of Clinical Pharmacy & therapeutics (I)

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

II- Course Identification and General Information:

1-	**Course Title:**	Clinical Pharmacy & Therapeutics (I)				
2-	**Course Number & Code:**	Ph2920				
3-	**Credit hours:**	**C.H**				**Total**
		Th.	**Seminar**	**Pr.**	**F. Tr.**	
		2	-	2		3
4-	**Study level/year at which this course is offered:**	5th level /1st semester				
5-	**Pre –requisite (if any):**	Pharmaceutical Care (II)				
6-	**Co –requisite (if any):**	-				
7-	**Program (s) in which the course is offered**	Bachelor degree of pharmacy				
8-	**Language of teaching the course:**	English				
9-	**System of Study:**	Semesters				
10-	**Mode of delivery:**	Regular				
11-	**Location of teaching the course:**	Faculty of Pharmacy- Sana`a university				

III- Course Description:

The course deals with selected major disease states and their therapy, especially in the individualization of drug usages. The role of the pharmacist in the provision of optimal patient care through monitoring of patients drug therapy is emphasized.

Overall Aims of Course:

A- Giving knowledge about the patho-physiology of disease.
B- Explain the symptoms and complications of the diseases.
C- Analysis treatment aims and algorithms, drug interactions, dose calculations, side effects of drugs.
D- Describe the appropriate lifestyle modifications, patient awareness and counseling.
E- Solve the given case according to the correct therapeutic way.

IV. Intended Learning Outcomes (ILOs) of the Course:

At the end of this course, the students will be able to:

1. Describe the principals of patho-physiology, symptoms and complications that relevant to diseases.
2. Recall knowledge about drugs and their uses therapeutically concerning their identities, safety, optimum use in medication and contraindications.
3. Recognize the lifestyle modifications, underlying causes and contributing factors in the development of disease.
4. Recognize the special considerations of populations required for designing a treatment plan.
5. Construct an appropriate monitoring plan to assess disease treatment.
6. Recognize recent researches, articles and advanced studies about treatment of diseases.
7. Correlate disease pathophysiology with their manifestations, investigations and physical examinations.
8. Solve the case studies according to the therapeutic way.
9. Interpret patient`s clinical data and features, including patient records held within practice settings.
10. Design and implement patient-specific plan, including monitoring parameters to solve & prevent drug related problems.
11. Evaluate critically observations and measurements, in terms of their significance and theory underlying them.
12. Give advises for the patients and others on the safe and effective use of medicines.
13. Apply acquired skills to diagnose the case studies precisely.
14. Interact effectively with patients, the public and health care professionals; includes communication both written and oral.
15. Solve the problem based on given information like patient history.
16. Work independently or collaboratively as a teamwork member to prepare seminars/ presentations or write reports for criticizing of suitable drugs for each case.

IV- Course Content:

1 – Course Topics/Items:

a – Theoretical Aspect

Order	Topic List / Units	CILOs (symbols)	Week Due	Contact Hours
1	Introduction And Definition Of Clinical Pharmacy	a1, a2, d1-3	1	2
2	Interpretation Of Clinical Laboratory Tests	a1, b4, d1-3	2	2
3	Anemia's (Iron Deficiency Anemia)	a1-6, b1-3, c1, c4, d1-3	3	2
4	Anemia's (Megaloblastic And, Pernicious Anemia	a1-6, b1-3, c1, c4, d1-3	4	2
5	Anemia's (Hemolytic Anemia)	a1-6, b1-3, c1, c4, d1-3	5	2
6	Renal Diseases (Nephritic Syndrome)	a1-6, b1-3, c1, c4, d1-3	6	2
7	Renal Diseases (Acute and Chronic Renal Failure	a1-6, b1-3, c1, c4, d1-3	7	2
8	Renal Diseases (Urinary Calculi)	a1-6, b1-3, c1, c4, d1-3	8	2
9	Med Term Exam	a1-6, b1-3, c1, c4	9	2
10	Liver Diseases (Hepatitis)	a1-6, b1-3, c1, c4, d1-3	10	2
11	Liver Diseases (Liver Cirrhosis)	a1-6, b1-3, c1, c4, d1-3	11	2
11	Thyroid Disorders (Hypothyroidism + Hyperthyroidism)	a1-6, b1-3, c1, c4, d1-3	12	2
13	Parathyroid Disorders (Hypo- + Hyperparathyroidism)	a1-6, b1-3, c1, c4, d1-3	13	2
14	Peptic Ulcer	a1-6, b1-3, c1, c4, d1-3	14	2
15	GERD	a1-6, b1-3, c1, c4, d1-3	15	2

16	Final Term Exam	a1-6, b1-3, c1, c4	16	2
Number of Weeks /and Units Per Semester			**16**	**32**

Note: 2 clerkship hours equal one credit hour

b- Practical Aspect:

Week	Case Study on	CILOs (symbols)	Week Due	Contact hours
1	Anemia's (Iron deficiency anemia)	c1, c2, c3, 4c	**1**	**2**
2	Anemia's (Megaloblastic and, Pernicious anemia	c1, c2, c3, 4c	**2**	**2**
3	Anemia's (Hemolytic anemia)	c1, c2, c3, 4c	**3**	**2**
4	Renal diseases (Nephritic syndrome)	c1, c2, c3, 4c	**4**	**2**
5	Renal diseases (Acute and Chronic renal failure	c1, c2, c3, 4c	**5**	**2**
6	Renal diseases (Urinary calculi)	c1, c2, c3, 4c	6	2
7	Med Term Exam	c1, c2, c3, 4c	7	2
8	Anemia's (Iron deficiency anemia)	c1, c2, c3, 4c	8	2
9	Anemia's (Megaloblastic and, Pernicious anemia	c1, c2, c3, 4c	9	2
10	Liver diseases (Hepatitis)	c1, c2, c3, 4c	10	2
11	Liver diseases (Liver cirrhosis)	c1, c2, c3, 4c	11	2
12	Thyroid disorders (Hypothyroidism + Hyperthyroidism)	c1, c2, c3, 4c	12	2
13	Parathyroid disorders (Hypo- + Hyperparathyroidism)	c1, c2, c3, 4c	13	2
14	Peptic ulcer	c1, c2, c3, 4c	14	2

15	GERD	c1, c2, c3, 4c	15	2
16	Final Term Exam	c1, c2, c3, 4c	16	2
Number of Weeks /and Units Per Semester			**16**	**32**

IV. a-Teaching strategies of the course:

Lecture method, Group Discussion, Problem solving sessions, case study, Computer based teaching and learning, tutorials, brainstorming and Practical sessions.

b- Assessment Methods:

Quizzes, Attendance, Participation, Short answers, reports, homework, and Written exam
Practical works, practical exam and practical reports.

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

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes (CILOs symbols)
8.	**Attendance, Participation and quizzes**	**All Weeks**	10	7%	a1-3,b1-2, c1, c4
9.	**Quizzes and Homework-assignments**	Sporadic through the semester	10	7%	a2-6, b3, c1, c4
10	**Attendance, Practical Reports**	**All Weeks**	15	10%	c1-4
11	**Practical mid-semester exam**	7th	15	10%	c1-4
12	**Theoretical mid-semester exam**	9th	30	20%	a1-6, b1-3, c1, c4
13	**Final Exam (theoretical)**	**16th**	50	33%	a1-6, b1-3, c1, c4

14	**Final Exam (practical)**	**16th**	20	13%	c1-4
	Total		**150**	**100%**	

V. Students' Support:

Office Hours/week	Other Procedures (if any)

VI. Learning Resource (MLA style or APA style)s:

6- Required Textbook(s) (maximum two)

1-Walker and Edwards (eds). **Clinical Pharmacy and Therapeutics**. 3rd edition (2003).

7- Recommended Readings and Reference Materials

Terry L. Schwinghammer & Julia M. Koehler. **Pharmacotherapy Casebook:** A Patient-Focused Approach 7th edition 2009

8- Essential References

Course notes (lecture notes and practical notes) prepared by teacher of the subject.

9- Electronic Materials and Web Sites *etc.*

Websites in international network (internet

10- Other Learning Material:

-

VI. Facilities Required:

1 - Accommodation:	- Well-equipped lecture halls with data show facilities, whiteboards, net connection, etc.

	- Well-equipped laboratories with all required equipment and reagents.
3 - Computing resources:	- Computer laboratory with internet facilities.

VII. Course Improvement Processes:

6- Strategies for obtaining student feedback on effectiveness of teaching

- Student-based assessment of the effectiveness of teaching using a questionnaire designed by the Quality Assurance Unit at the end of the semester.
- Meeting with students and faculty (once per semester).

7- Other Strategies for Evaluation of Teaching by the Instructor or by the Department.

- Assessment of the course syllabus and contents by the teachers using a questionnaire designed by the Quality Assurance Unit of the university at the end of the semester.
- Regular meeting and discussion of the course content between the Head of Department and the teaching staff of the course (for theory and practice).

8- Processes for Improvement Of Teaching.

- Revision of the course specification and its teaching strategies every three academic years after consideration of all issues raised by the teachers and/or students during regular meetings and discussions.
- Exploring any possible defects in the course that might be encountered by the teaching staff and their mitigation in subsequent improved versions of course specification.

9- Processes for Verifying Standards of Students' Achievement

- Checking of a sample of students' work by an independent faculty member.
- Periodic exchange and check marking of a sample of students' assignments with a faculty member from another institution.
- Adoption of scoring rubrics to assess the students' achievement (both for ongoing or summative assessments).
- Regular follow-up of laboratory logbooks to assess the practical achievement of students.

10- Procedures for Periodically Reviewing Of Course Effectiveness and Planning for Improvement

	▪ Student rating and feedback ▪ Peer rating and feedback ▪ Regular meeting of the Curriculum Committee of the faculty.
6- Course Development Plans	
	▪ Conducting regular workshops for the staff for improving their course specification skills. ▪ Regular revision of course specification and syllabus items.

IX. Course Policies: (including plagiarism, academic honesty, attendance etc)

The University Regulations on academic misconduct will be strictly enforced. Please refer to ----------

1	**Class Attendance:** ▪ Attendance of all lectures and practical sessions is required. Unexcused absence exceeding 25% of the lectures or practical sessions will disqualify the student from entering the final exam.
2	**Tardy:** - Roll will be called in the very beginning of each lecture and practical class. Retardation for more than three weeks without a reasonable excursion, the student involved shall not be allowed to attend the class any longer and consequently shall be considered to be absent.
3	**Exam Attendance/Punctuality:** ▪ Exam attendance is obligatory unless being excused by the department and faculty. ▪ Absence from assignments or exams will be dealt with according to the general policy of the university.
4	**Assignments & Projects:** ▪ Assignments: Written and oral; Laboratory logbook signed by the responsible demonstrator. ▪ Projects: Not applicable.
5	**Cheating:** ▪ Punishment of cheating will be according to the general policy of the university in this respect.
6	**Plagiarism:** ▪ Plagiarism in written essays, reports, etc. is not accepted, and students who plagiarize the works of others will be punished according to the general policy of the university.

7	**Other policies:** ▪ General policies of the Students' Affairs of the University and the Quality Assurance Unit.