# Course Specifications

## Applied Industrial Pharmacy

## (PT E11)

# Elective Course

# Course Specification

| A-Basic Information | |
|---|---|
| **Course code:** | PT E11 |
| **Course name:** | Applied industrial pharmacy |
| **Credit hours of the course:** | Lecture: 2<br>Practical: 0<br>Total: 2 |
| **Pre-requisite of the course:** | -- |
| **Department teaching the course:** | Pharmaceutics |
| **Program for which the course is given:** | Clinical Pharmacy Program |
| **Course Co-coordinator:** | Dr. Doaa Helal |
| **Head of the Department:** | Prof Dr. Mona Hetta |
| **Date of specifications approval:** | 12/1/2019 |

## B-Professional Information

### 1- Overall aims of the course:

By the end of this course the students should be able to:
To provide students with a comprehensive understanding of the essential concepts, regulations, and practices that govern the manufacturing of pharmaceutical products. This includes in-depth knowledge of **Good Manufacturing Practice (GMP)** regulations, **quality assurance** systems, and key processes such as **process validation**, **sampling techniques**, and **quality control** procedures. The course is designed to prepare students to apply their theoretical knowledge to real-world pharmaceutical manufacturing practices, ensuring the quality, safety, and compliance of drug products.

### 2-intended learning outcomes (ILO'S)

**a- knowledge and understanding**

by the end of this course, the student should be able to :

A1.Explain the principles of Good Manufacturing Practices (GMP), including its role in ensuring the quality, safety, and efficacy of pharmaceutical products throughout the manufacturing process.

A2. Understand the key components of a quality assurance **system** in pharmaceutical manufacturing, including quality control, documentation, audits, and compliance with industry standards.

A3.Describe the importance of process validation in pharmaceutical manufacturing, and identify the different stages of validation (e.g., installation qualification, operational qualification, performance qualification) and their role in ensuring consistent product quality.

**B. intellectual Skills**

By the end of this course, the student should be able to:

b1.Analyze manufacturing processes to identify potential risks to product quality, safety, and compliance, and propose solutions based on GMP principles and quality assurance practices.

B2. Critically evaluate process validation protocols, including the design of validation studies and data analysis, to ensure that manufacturing processes are consistent, reproducible, and meet regulatory requirements.

B3. Assess the quality and compliance of pharmaceutical products through the analysis of sampling data, using statistical methods to interpret test results and make informed decisions about product quality.

**c-Professional and Practical Skill**

By the end of this course, the student should be able to:

c1.implement GMP practice effectively within a pharmaceutical manufacturing environment, ensuring compliance with all aspects of GMP, including cleanliness, equipment maintenance, personnel hygiene, and proper documentation.

C2.Conduct process validation across different stages of pharmaceutical manufacturing, including installation qualification (IQ), operational qualification (OQ), and performance qualification (PQ), to verify that equipment, processes, and systems consistently produce products that meet predefined quality standards.

C3. Perform appropriate sampling techniques for raw materials, in-process materials, and finished products to ensure that the pharmaceutical products meet the required specifications and quality standards. This includes using validated statistical methods to select and test representative samples.

**D-General Skills**:

By the end of this course, the student should be able to:

d1.adapt to changes in regulations and industry standards, staying updated on the latest GMP guidelines and regulatory requirements to ensure compliance in all processes.

D2.Solve problems by identifying issues in the manufacturing process, analyzing data, and proposing practical solutions to improve quality and compliance.

| 3- Course contents: | | | |
|---|---|---|---|
| **Topic** | **No. of hours** | | |
| | **Lecture** | **Practical** | **Total** |
| Introduction to Applied Industrial Pharmacy | 2 | 0 | 2 |
| Good Manufacturing Practice (GMP) | 2 | 0 | 2 |
| Quality Assurance in Pharmaceutical Manufacturing | 2 | 0 | 2 |
| Process Validation | 2 | 0 | 2 |
| Sampling Techniques for Quality Control | 1 | 0 | 1 |
| Regulatory Guidelines and Compliance | 1 | 0 | 1 |
| Quality Control in Pharmaceutical Manufacturing | 1 | 0 | 1 |
| Review and Application of Concepts in Pharmaceutical Manufacturing | 1 | 0 | 1 |
| Total | 12 | 0 | 12 |

| **4- Teaching and Learning Methods (lectures, open discussion, role plays…etc.):** |
|---|
| - Lectures, using Power point presentation<br>- Open discussion<br>- |

| **a- Assessment Methods and Weighing** |
|---|
| - Class participation: 10%<br>- Practical Exam --<br>- Oral Exam :--<br>- Final Exam: 90% |
| **b- Assessment Schedule:** |
| - Class participation: Quiz 1: Week 4-5<br>Quiz 2: Week 8-9<br>Other activities: throughout the semester<br>- Practical Exam: --<br>- Final Exam: According to semester timetable |

Course Coordinator: Dr. Doaa Helal

Head of Department: Prof. Dr. Mona Hetta

Date: 11/2/2019

**Course Specifications**
**(2018 – 2019)**

# Course: Toxicology and forensic chemistry

**Course Specifications**
**(2018 – 2019)**

## A. Basic Information

| | |
|---|---|
| Program(s) on which the course is given: | Clinical |
| Department offering the course | Pharmacology and Toxicology department |
| Faculty offering the program | Faculty of Pharmacy, Fayoum University |
| Dept. responsible for teaching the course | Pharmacology and Toxicology department |
| Academic year / level | 5th |
| Course title | Toxicology and forensic chemistry |
| Course code | PO904 |
| Contact hours (credit hours) | 3 |
| Pre-requisite of the course: | Pharmacology-2 |
| Course coordinator | Ass.Prof. Mona Mohamed El-Nad |
| Major or Minor element of program | Major |
| Date of specification approval | 09/2018 |

## B. Professional Information

### 1. Overall Aims of Course

The aims of the course are to understand the basic principles of toxicology and the different disciplines of toxicology and to understand the mechanism of toxicity, clinical presentation, diagnosis and medications indicated and contraindicated in the treatment of toxicity of common drug and chemical groups. In addition the course aims to gain knowledge regarding the supportive measures, therapeutic interventions, specific antidotes as general guidelines of treatment modalities. Furthermore gain general knowledge regarding forensic chemistry.

### 2. Intended Learning Outcomes of Course (ILOs)

**a- Knowledge and Understanding:**

By the end of this course, the students should be able to:

a1. Identify the different sources of toxicity and the factors that can enhance the exposure hazards.

a2. Discuss the possible risks of exposure to toxicants by environmental, occupational and clinical medicine.

a3. Understand toxic profile of various drugs and other xenobiotics including sources, identification, symptoms and management.

a4. Discuss the main guidelines of management of injuries and emergency medical problems.

**b- Intellectual Skills**

By the end of this course, the students should be able to:

b1. Differentiate betweendifferent toxic agentsregarding their symptoms as well as their main lines of toxicity treatment.
b2. Criticize different methods for the management of poisoning in individual cases of toxicity.

c- **Professional and Practical Skills**

By the end of this course, the student should be able to:

c1. Determine the toxicity profiles of different xenobiotics and detect poisons in biological specimens.

c2. Expect the biological response to a specific dose of the drug.

c3: Analyse the medical data of poisoned patients to recommend the most suitable management protocol in case scenarios.

**c- General and Transferable Skills**
By the end of the course, the student should be able to:

d1. Communicate properly with professor and lab technicians.

d2: Plan and implement efficient and effective modes of working to manage patient toxicity through group discussions and participation in laboratory sessions.

d3: Work coherently and successfully as a part of a team.

d4: Apply ethical guidelines in her/his professional career.

## 3. Contents

| Teaching week | TOPIC | No. of lecture hours | No. of Practical hours | Total |
|---|---|---|---|---|
| 1 | General principles of toxicity | 6 | 8 | 14 |
| 2 | Toxicity of CNS depressants & stimulants | 4 | | 4 |
| 3 | Toxicity of anticholinergics & pesticides | 4 | | 4 |
| 4 | Toxicity of heavy metals | 2 | | 2 |

| | | | | |
|---|---|---|---|---|
| 5 | Food poisoning | 2 | | 2 |
| 6 | Teratogenicity and carcinogenicity | 4 | | 4 |
| 7 | Forensic chemistry | 2 | 4 | 6 |
| Total no of hours | | 24 | 12 | 36 |

## 4. Teaching and Learning Methods (Lectures, open discussions, role plays, .etc)

4.1- Interactive Lectures

4.2- Laboratory classes

4.3- Student activities (assignments, Seminars, Researches and Posters)

## 5. Student Assessment:

### a- Assesment methods and weighing:

- Class participation: 10% (assess knowledge and understanding and Intellectual Skills)

- Practical exam: 25% (assess knowledge and understanding and Intellectual and practical Skills)

- Oral exam: 15% (assess knowledge and understanding and Intellectual Skills)

- Final exam: 50% (assess knowledge and understanding and Intellectual Skills)

### b- Assessment Schedule

- Class participation: Quiz 1: Week 4-5

  Quiz 2: Week 8-9

  Other activities: throughout the semester

- Practical exam: Week 12

- Oral exam: according to semester timetable

- Final exam: according to semester timetable

## 6. List of References

| | |
|---|---|
| Course Notes | Department notes prepared by instructors |
| Required Books | Illustrated handbook of toxicology |
| Recommended Books | Principles of Toxicology: Environmental and Industrial Applications, 3rd Edition |
| Periodicals | www.pubmed.com |
| Web Sites | https://www.biomedcentral.com/bmcpharmacol/ |

**Course Coordinator: Ass.Prof. Mona Mohamed El-Naa**

**Head of Department: Ass.Prof. Mona Mohamed El-Naa** **Date: /09/2018**

## Course Specifications

| A-Basic Information | |
|---|---|
| **Course code:** | PP 907 |
| **Course name:** | Clinical Pharmacokinetics |
| **Credit hours of the course:** | Lecture: 2<br>Practical:1<br>Total:3 |
| **Pre-requisite of the course:** | Department of Pharmacy Practice |
| **Department teaching the course:** | Clinical Pharmacy Program |
| **Program for which the course is given:** | Dr. Azza Mancy |
| **Course Co-ordinator:** | Prof. Dr. Mona Hetta |
| **Head of the Department:** | Department of Pharmacy Practice |
| **Date of specifications approval:** | 09/2018 |

| B-Professional Information |
|---|
| **1-Overall aims of the course:** |
| This course aims at teaching students to investigate, review and evaluate (qualitative and quantitative) the process of drug distribution, metabolism and elimination. Also it helps students be acquainted with therapeutic monitoring tools that are used in optimizing drug therapy |
| **2-Intended learning outcomes (ILO's):** |
| **a-Knowledge and Understanding:**<br>By the end of this course, the student should be able to: |

مدير وحدة ضمان الجودة

a1-Know the stepwise process of pharmacokinetics and pharmacodynamics

a2-Know how to modify dose and deal with patients with impaired renal and hepatic disorders

a3-Understand how route of administration affects the pharmacokinetics of drug

**b-Intellectual Skills:**

By the end of this course, the student should be able to:

b1-Solve the problem of dosing drugs of low therapeutic index based on close monitoring of their blood levels

b2-Design individualized dosage regimens for patients with renal and hepatic disorders

b3-Evaluate the clinical significance of obtained blood levels of different medications.

**c-Professional and Practical Skills:**

By the end of this course, the student should be able to:

c1-Apply compartmental open models to design different dosage regimen of a given drug product

c2-Select appropriate analysis methods and accurate sampling time for therapeutic drug monitoring for individualized medications

c3-Estimate bioavailability and bioequivalence concepts

**d-General Skills:**

By the end of this course, the student should be able to:

d1-Have the power to Communicate properly with professors and colleagues

d2-Show ability to work cooperatively in a team

d3-Point out how to consider drug-drug or drug disease interactions

d4-Develop self-motivation for continuous education

**3-Course contents:**

| Topic | Lecturer | No. of hours | | |
|---|---|---|---|---|
| | | Lecture | Practical | Total |
| Overview of pharmacokinetics: compartmental models and therapeutic drug monitoring principles | Dr. Azza Mansy | 2 | 1 | 3 |

| | | | | |
|---|---|---|---|---|
| bioavailability and bioequivalence | | | | |
| One compartment open models: IV bolus and IV infusion & multiple oral and IV dosing | Dr. Azza Mansy | 2 | 1 | **3** |
| Nonlinear pharmacokinetics | Dr. Azza Mansy | 2 | 1 | **3** |
| Dose individualization for Phenytoin | Dr. Azza Mansy | 2 | 1 | **3** |
| Dose individualization for patients with renal impairment (aminoglycosides) | Dr. Azza Mansy | 2 | 1 | **3** |
| Dose individualization for patients with hepatic impairment | Dr. Azza Mansy | 2 | 1 | **3** |
| Dose individualization for theophylline | Dr. Mawa Kamal | 2 | 1 | **3** |
| Dose individualization for digoxin | Dr. Mawa Kamal | 2 | 1 | **3** |
| Dose individualization for cyclosporine | Dr. Mawa Kamal | 2 | 1 | **3** |
| Dose individualization for Phenytoin | Dr. Mawa Kamal | 2 | 1 | **3** |
| Dose individualization for vancomycin | Dr. Mawa Kamal | 2 | 1 | **3** |
| Dose individualization for lidocaine | Dr. Mawa Kamal | 2 | 1 | **3** |
| | | **24** | **12** | **36** |

**4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):**

1- Interactive lectures
2- Case studies
3- Self -learning assignments
4- Class activity
   - Individual / Group presentation
   - Group discussion
5- Office hours

**5- Student Assessment:**

**a-Assessment Methods and Weighing:**

- Class participation: 15 %
- Practical exam: 20 %

| | |
|---|---|
| - Oral exam: 15 % | |
| - Final exam: 50 % | |
| **b-Assessment Schedule:** | |
| - Class participation: | Quiz 1: Week 4-5<br>Quiz 2: Week 8-9<br>Other activities: throughout the semester |
| - Practical exam: | Week 13-14 |
| - Oral exam: | According to semester timetable |
| - Final exam: | According to semester timetable |

| **6-List of References:** | |
|---|---|
| Course Notes | |
| Required Books | a. Larry A. Bauer; Applied pharmacokinetics; 2008; McGraw-Hill Medical.<br>b. Michael E. Winter; Basic Clinical Pharmacokinetics 5th edition; 2009; Lippincott Williams & Wikins |
| Recommended Books | William j.Spruill, Robert A. Blouin, Jane M.Pruemer, William E. Wade Joseph T. Dipiro; concepts in clinical pharmacokinetics, 5th edition; 2010; ASHP |
| Periodicals | |
| Web Sites | http://www.boomer.org/pkin/<br>http://www.boomer.org/c/p1<br>http://pharmacy.creighton.edu/pha443/pdf/ |

**Course Coordinator:** Dr. Azza Mancy

**Head of Department:** Prof. Dr. Mona Hetta

**Date:** 09/2018

**Course Specifications**
**(2017 – 2018)**

# Drug interactions

# 4307

**Course Specifications**
**(2017 – 2018)**

# Department of Pharmacology and Toxicology

## A. Basic Information

| | |
|---|---|
| Program(s) on which the course is given: | Clinical Pharmacy |
| Department offering the course | Department of Pharmacology and Toxicology, Faculty of Pharmacy, Fayoum University |
| Faculty offering the program | Faculty of Pharmacy, Fayoum University |
| Dept. responsible for teaching the course | Department of Pharmacology and Toxicology, Faculty of Pharmacy, Fayoum University |
| Academic year / level | 2017/2018 (Level 4) |
| Course title | Drug interactions |
| Course code | PO 803 |
| Contact hours (credit hours) | Lecture:(2), Practical: (0), Total: 2 |
| Pre-requisite of the course: | Pharmacology-2 |
| Course coordinator | Dr Rasha Abdelhady |
| Major or Minor element of program | Major |
| Date of specification approval | 01/2018 |

## B. Professional Information

### 1. Overall Aims of Course

(The course aim and intended learning outcomes are based on that mentioned in the program specifications, with more course-related specific details.)

The aim of the course is to ensure that the graduated pharmacist achieved the competencies of integration of the knowledge concerning the types, mechanisms, significance, as well as management of drug interaction. It also provides knowledge regarding drug interaction of specific classes of drugs such as antibiotics, antiarrhythmic, anticoagulants, anticonvulsants, barbiturates, beta-agonists and antagonists, calcium channel antagonists, sulfonamides. In addition to, drug-food interaction and drug-smoking interaction.

### 2. Intended Learning Outcomes of Course (ILOs)

**a- Knowledge and Understanding:**

By the end of the course, the students should be able to:

a1. Recognize the main types of drug interactions

a2. Describe the general mechanisms underlying drug interactions

a3. Identify the most potential interactions for specific classes of drugs such as antiarrhythmic and anticonvulsants

a4. Identify general measures for management/avoidance of potential adverse effects of drug interactions.

a5. Identifying both drug-nutrient and drug-smoking interactions

**b- Intellectual Skills**

b1. Identify strategies for patient monitoring for identification of adverse drug interactions

b2. Predict and apply drug design, therapeutic protocols for avoidance or management of drug interactions

By the end of this course, the student should be able to:

b3. Interpret specific symptoms and signs related to adverse effects of drug interactions

**c- Professional and Practical Skills**

c1. Select the suitable medicines for multiple drugs treated patients.

c2. Provide updated information to patients and healthcare professionals about the proper use of medicine and its probable clinically significant adverse interactions.

By the end of the course, the student should be able to:

**d- General and Transferable Skills**

By the end of the course, the student should be able to:

d1. Improve critical thinking regarding problems and situations where decisions should be made on bases of limited information.

d2. Developing and working in groups which increase the communication and knowledge regarding patient safety and outcome

d3- Present clearly and effectively a scientific topic among groups.

## 3. Contents

| Teaching week | TOPIC | No. of lecture hours | Assessment of ILOs |
|---|---|---|---|
| 1 | Types and mechanisms of drug interactions | Total: 3(2+1) | a1, a2, b3, c1, d1, d2 |
| 2 | Sulphonamides interactions | Total: 3(2+1) | a2, a3, a4, b2, b1, b3, c2, d1, d2 |
| 3 | Ca channel blockers interactions | Total: 3(2+1) | a2, a3, a4, b2, b1, b3, c2, d1, d2 |
| 4 | Drug-nutrient interactions | Total: 3(2+1) | a2, a3, a4, b2, b1, b3, c2, d1, d2 |
| 5 | Drug-smoking interactions | Total: 3(2+1) | a2, a3, a4, b2, b1, b3, c2, d1, d2 |
| 6 | Antibiotic interactions | Total: 3(2+1) | a2, a3, a4, b2, b1, b3, c2, d1, d2 |
| 7 | Antiarrhythmic interactions | Total: 3(2+1) | a2, a3, a4, b2, b1, b3, c2, d1, d2 |
| 8 | Barbiturates interactions | Total: 3(2+1) | a2, a3, a4, b2, b1, b3, c2, d1, d2 |
| 9 | Anticonvulsant interactions<br>Anticoagulants interactions | Total: 3(2+1) | a2, a3, a4, b2, b1, b3, c2, d1, d2 |
| 10 | Beta agonists and antagonists interactions | Total: 3(2+1) | a2, a3, a4, b2, b1, b3, c2, d1, d2 |
| Total no of hours | 30 | | |
| 12 | FINAL Exam | | |

## 4. Teaching and Learning Methods

4.1- Lectures (board, data show)

4.2- Assignments

4.3- Class discussion

## 5. Student Assessment Methods

5.1. Written exams to assess knowledge and understanding as well as intellectual skills.

5.2. Oral exams to assess all types of skills and mainly general and transferrable skills practice.

5.3. Practical exams

## Assessment Schedule

| | |
|---|---|
| Quiz 1 | 4th or 5th week |
| Quiz 2 | 8th or 9th week |
| Practical exam | 10th week |
| Final exam | 12th week; according to semester schedule |
| Oral exam | 12th week; according to semester schedule |

## Weighting of Assessments

| | |
|---|---|
| Periodical | 13% |
| Practical | 20% |
| Final exam | 54% |
| Oral exam | 13% |
| Total | 100% |

# 6. List of References

**6.1- Course Notes: Lecture notes in Drug interactions by Staff Members of the Department of Pharmacology &Toxicology.**

**6.2- Essential Books (Textbooks)**

1. Brophy, G. (2007). Stockley's Drug Interactions Pocket Companion..
2. Trevor, A. J., Katzung, B. G., Masters, S. B., & Kruidering-Hall, M. (2010). Pharmacology examination & board review. New York: McGraw-Hill Medical.
3. Howland, R. D., & Mycek, M. J. (2006). 1-Lippincotts illustrated reviews: Pharmacology. Teaching Learning, 5, 5.

**6.3- Periodicals :** https://www.webmd.com/interaction-checker/default.htm.
https://www.drugs.com.
https://www.medscape.com.

- **6.4- Web Sites:** globalrbh.com, lexicomp.org and www.ekb.eg

## Facilities required for teaching and learning

1. Lecture rooms with data show
2. Procurement of latest edition of the above-mentioned texts and others to update the education process

## Course Specifications
(2017 – 2018)

**Course Coordinator:** Dr Rasha Abdelhady

**Head of Department: Ass. Prof. Mona El Naa**

**Date:** /01/2018

**Course Specifications**
**(2018 – 2019)**

# Clinical Nutrition

# PP 909

## A. Basic Information

| | | | |
|---|---|---|---|
| **Course Title:** | **Clinical Nutrition** | | |
| **Course Code:** | **PP 909** | | |
| **Program on which the course is given:** | **Clinical program** | | |
| **Department offering the course:** | **Biochemistry** | | |
| **Academic year/ level:** | **1st term 2018/2019** | **Level Five** | |
| **Prerequisite:** | **Biochemistry 2 (PB 502)** | | |
| **Credit hours:** | **Lecture: 1** | **Practical: 1** | **Total: 2** |

## B. Professional Information

1. **Course Aims:**

The course aims to overview the principles of nutrition for healthy and disease states with consideration of the physiological effects of specialized diets for specific biological needs and learn the role of diet in causing and preventing various diseases particularly chronic diseases and different health status.

## 2. Intended Learning Outcomes (ILOs):

### a. Knowledge and understanding:

At the end of this course, student should be able to:

| | | |
|---|---|---|
| A1 | a1. | Identify the basic nutritional concepts |
| A4 | a2. | Enumerate the theories of nutrition assessment |
| A9 | a3. | Identify the principles of nutrition therapy in blood disorders, obesity and cardiovascular diseases |
| A11 | a4. | Define the principles of proper nutrition in health and disease states in cases like obesity, diabetes mellitus, renal, liver disease and anemia. |
| A15 | a5. | Recognize the appropriate nutrition requirements in different common chronic disease, pregnancy and infancy. |

### b. Intellectual Skills:

At the end of this course, student should be able to:

| | | |
|---|---|---|
| **B15** | **b1.** | **Estimate healthy and unhealthy nutrients effects** |
| **B18** | **b2.** | **Correlate the proper nutrient with pathophysiology in diseases like diabetes, liver, kidney disease and anemia.** |
| **B21** | **b3.** | **Interpret of clinical laboratory tests with the impact of clinical symptoms in mal nutrition in different chronic disease cases** |
| **B11** | **b4.** | **Assess possible nutrition therapy protocols in implementing pharmaceutical care.** |
| **B22** | **b5.** | **Integrate a suitable nutritional therapeutic plan for a patient and apply subjective, objective, assessment, and plan (SOAP) note principles for different diseases.** |

### c. Professional and Practical Skills:

At the end of this course, student should be able to:

| | | |
|---|---|---|
| C10 | c1. | Imply the proper guidelines to ensure the diet role in management of chronic disease, in addition to, diet requirements in different states like pregnancy and anemia. |

| | | | |
|---|---|---|---|
| | C7 | c2. | Assess different vitamins deficiencies |
| | C9 | c3. | Raise public awareness on role of nutrition in management of chronic diseases like kidney and liver failure by proper understanding of human physiology and etiology of these diseases |

**d. General and Transferable Skills:**

At the end of this course, student should be able to:

| | | |
|---|---|---|
| D1 | d1. | Communicate effectively with patients and health care professionals |
| D5 | d2. | Develop information technology (IT) skills. |
| D6 | d3. | Develop skills required for self-learning |

**3. Contents:**

**3.1 Lectures:**

| Study week | Topics | No. of Credit Hours |
|---|---|---|
| 1. | Energy balance and Body composition | 1 |
| 2. | Energy balance and Body composition | 1 |
| 3. | Nutrition assessment | 1 |
| 4. | Body Mass index | 1 |
| 5. | Case study on renal disease | 1 |
| 6. | Case study on cardiovascular diseases | 1 |
| 7. | Case Study on diabetes mellitus | 1 |
| 8. | Case study on liver diseases | 1 |
| 9. | Case study on Obesity | 1 |
| 10. | Revision | 1 |
| 11. | Practical Exam | 1 |

**3. 2. Practical:**

| Study week | Topics | No. of Credit Hours |
|---|---|---|
| 1. | Energy balance and Body composition | 1 |

| | | |
|---|---|---|
| **2.** | Energy balance and Body composition | 1 |
| **3.** | Nutrition assessment | 1 |
| **4.** | Body Mass index | 1 |
| **5.** | Case study on renal disease | 1 |
| **6.** | Case study on cardiovascular diseases | 1 |
| **7.** | Case Study on diabetes mellitus | 1 |
| **8.** | Case study on liver diseases | 1 |
| **9.** | Case study on Obesity | 1 |
| **10.** | Revision | 1 |
| **11.** | Practical Exam | 1 |

## 4. Teaching and Learning Methods:

| | |
|---|---|
| **4.1.** | Lectures |
| **4.2.** | Practical lab |
| **4.3.** | Discussion |
| **4.4.** | Electronic learning |
| **4.5.** | Assignment and homework. |

## 5. Student Assessment Methods:

### 5.1.Assessment methods:

| | |
|---|---|
| 1. Written exam | to assess knowledge, understanding, intellectual and professional skills. |
| 2. Course work | to assess knowledge, understanding, intellectual skills, general & transferable skills. |
| 3. Quizzes | to assess knowledge, understanding and intellectual skills. |

### 5.2.Assessment schedule:

| | | |
|---|---|---|
| Assessment 1 | Quiz 1 | 4th week |

| | | |
|---|---|---|
| Assessment 2 | Midterm | 8th week |
| Assessment 3 | Practical exam | 11th week |
| Assessment 4 | Oral exam | 12th & 13th weeks |
| Assessment 5 | Written exam | 12th & 13th weeks |

**5.3.Weighing of Assessments:**

| | |
|---|---|
| **1.** Course work: | |
| - Quiz 1 | 5 |
| - Midterm | 5 |
| **2.** Final-Term Exam | 50 |
| **3.** Oral Exam | 15 |
| **4.** Practical Exam | 25 |
| Total | 100% |

**6. List of References:**

| | Reference | Type |
|---|---|---|
| | **Human Nutrition, Catherine Geissler Hilary Powers 12th Edition. Churchill Livingstone 2010.** | **Textbook** |
| | **Modern Nutrition in Health and Disease / 11th Edition, 2014. by A. Catharine Ross, Benjamin Caballero, Robert J. Cousins, Katherine L. Tucker, Thomas R. Ziegler. Lippincott Williams & Wilkins** | **Textbook** |
| | **Understanding normal and clinical nutrition, Sharon Rady Rolfes, Kathryn Pinna,Ellie Whitney, 2009, Eighth Edition)** | **Text book** |
| | **Nutrition Support to Pharmacologic Nutrition in the ICU by Claude Pichard and Kenneth A. Kudsk (2002 Edition).** | **Textbook** |

| | | |
|---|---|---|
| | **The American journal of clinical nutrition**<br>**https://academic.oup.com/ajcn** | **Periodical** |

## 7. Matrix of course contents versus ILOs:

### 7.1. Lectures:

| Study week | Course Contents | ILOs | | | |
|---|---|---|---|---|---|
| | | K&U | IS | P&PS | G&TS |
| 1. | Different types of nutrients | a1 | b1<br>b3 | c1 | -- |
| 2. | Nutrition assessment principles | a2 | b1<br>b3 | c1 | -- |
| 3. | Vitamins | a2 | b1<br>b3 | c1 | d1<br>d2 |
| 4. | Minerals+ Quiz 1 | a2 | b1<br>b3 | c1 | d1<br>d2 |
| 5. | Nutrition and blood disorders | a3 | b2 | c1<br>c3 | d1-d3 |
| 6. | Nutrition and Cardio vascular disease | a3 | b1 | c2<br>c3 | d1 |
| 7. | Nutrition in management of obesity | a4 | b3<br>b4<br>b5 | c2 | d1 |
| 9. | Nutrition in pregnancy and lactation + Midterm | a5 | b3<br>b4<br>b5 | c2 | d1-d3 |
| 10. | Nutrition in Kidney disease | a4 | b3<br>b4<br>b5 | c1<br>c3 | d2 |
| 10. | Nutrition in Liver disease | a4 | b3<br>b4<br>b5 | c1 | d3 |

### 7.2. Practical:

| Study week | Course Contents | ILOs | | | |
|---|---|---|---|---|---|
| | | K&U | IS | P&PS | G&TS |
| 1. | Energy balance and Body composition | a1 | b1 | c1 | -- |

| | | | | | |
|---|---|---|---|---|---|
| **2.** | Energy balance and Body composition | a1 | b1 | c1,c3 | -- |
| **3.** | Nutrition assessment | a1 | b1 | c3 | d1 |
| **4.** | Body Mass index | a1 | b1 | c3 | d1,d2 |
| **5.** | Case study on renal disease | a3 | b1<br>b4 | c2,c3 | d1,d3 |
| **6.** | Case study on cardiovascular disease | a4 | b3<br>b5 | c2,c3 | d1,d3 |
| **7.** | Case Study on diabetes mellitus | a5 | b3<br>b5 | c1,c3 | d1,d3 |
| **9.** | Case study on liver diseases | a3 | b3<br>b4 | c3 | d1,d3 |
| **10.** | Case study on Obesity | a4<br>a5 | b3<br>b5 | c3 | d1,d3 |

| | Name | Signature |
|---|---|---|
| **Course Coordinator:** | Dr. Alyaa Ali | |
| **Head of Department:** | Prof. Dr. Mona Hetta | |
| **Approval Date** | 09/2018 | |

**Course Specifications**
**(2017 –2018)**

# Phytotherapy

# 208

**Course Specifications**
**(2017 –2018)**

# Pharmacognosy Department

## A. Basic Information

| | |
|---|---|
| Program(s) on which the course is given | Bachelor of pharmacy |
| Department offering the course | Pharmacognosy department |
| Faculty offering the program | Faculty of Pharmacy, Fayoum University |
| Dept. responsible for teaching the course | Pharmacognosy department |
| Academic year / level | Forth level, first semester |
| Course title | Phytotherapy |
| Course code | 208 |
| Contact hours (credit hours) | Lecture (2) + Practical (1): Total (3) |
| Pre-requisite of the course: | Phytochemistry 2 |
| Course coordinator | Prof. Mona Hetta |
| Major or Minor element of program | Major |
| Date of specification approval | 07/01/2018 |

## B-Professional Information

**1-Overall aims of the course:**

Coordination between the disease and its natural treatment.

**2-Intended learning outcomes (ILO's):**

**a-Knowledge and Understanding:**

By the end of this course, the student should be able to:

a1. Symptoms of different diseases affecting different body systems

a2. Methods of treatments using herbal medicines

a3. Pharmacological actions of each plant as well as their methods of action

**b-Intellectual Skills:**

By the end of this course, the student should be able to:

b1. from the patient investigations how to figure out the disease

b2. how to prepare mix of different herbs for treatment

b3. the contraindication of each herb and what to mix with as well as what not to mix with.

**b-Intellectual Skills:**
By the end of this course, the student should be able to:
b1. from the patient investigations how to figure out the disease
b2. how to prepare mix of different herbs for treatment
b3. the contraindication of each herb and what to mix with as well as what not to mix with.

**c-Professional and Practical Skills:**
By the end of this course, the student should be able to:
c1. be able to share his knowledge with MD
c2. to give his suggestions for treatment
c3. Use his knowledge to overcome synthetic drugs side effects by replacing them with natural ones.

**d-General Skills:**
By the end of this course, the student should be able to:
d1. Make different dissections with patient
d2. Updated by the most recent through world treatments
d3. Use surrounding available tools for treatments

**3.Contents**

| Teaching week | TOPIC | No. of lecture credit hours | No. of practical credit hours | Assessment of ILOs |
|---|---|---|---|---|
| 1 | Introduction | 2 | ----- | |
| 2 | Introduction + Wound healing | 2 | 1 | |
| 3 | Digestive system diseases | 2 | 1 | |
| 4 | Skin diseases | 2 | 1 | |
| 5 | Urinary tract diseases | 2 | 1 | |
| 6 | Immunity system | 2 | 1 | |
| 7 | Introduction to different CVS diseases + CHF | 2 | 1 | |
| 8 | Hypertension+ Angina | 2 | 1 | |
| 9 | Varicose vein + arterial occlusions | 2 | 1 | |
| 10 | Respiratory problems Part 1 | 2 | 1 | |
| 11 | Respiratory problems Part 2 | 2 | 1 | |
| 12 | Endocrine (hormonal imbalance + Diabetes) | 2 | 1 | |
| | Total | 12 | 11 | |

## 4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):

Using advanced teaching techniques as power point presentation as well as discussion circles in addition to carrying out projects.

**5- Student Assessment:**

Periodical exams (2-3 exams) – activities: (search – presentation)
Practical exam
Final theoretical exam
Oral exam

**a-Assessment Methods and Weighing:**

- Class participation: 20marks (13.33%)
- Tutorial/Practical exam: 25marks (16.66%)
- Oral exam: 20 marks (13.33%)
- Final exam: 80 marks (53.33%)

**b-Assessment Schedule:**

- Class participation: Quiz 1: Week 4-5
  Quiz 2: Week 10-11
  Other activities: throughout the semester
- Case study: weeks: 8, 9, 10.
- Presentations: weeks: 4 till 8.
- Practical exam: Week 12delivery of products, identification of samples (A.C.)
- Oral exam: According to semester timetable
- Final exam: According to semester timetable

**6-List of References:**

| | |
|---|---|
| Course Notes | Lecture and practical notes prepared by instructors |
| Required Books | WHO monographs on selected medicinal plants volume 1&2, World Health, Organization, Geneva, 1999. |
| Recommended Books | • Medicinal Natural Products A Biosynthetic Approach, Second Edition, Paul M Dewick, 2002<br>• Fundamentals of Pharmacognosy and Phytotherapy was written by Michael Heinrich, 2004, and published by Elsevier Science, Spain. |
| Periodicals | --- |
| Web Sites | http://www.pubmed.com<br>http://www.botanical .com<br>http://www.herbmed.com |

**Teaching professors: Prof. Dr. Abdel Salam Ibrahim – Prof. Dr. Mona Hetta**

**Course Coordinator: Prof. Mona H. Hetta**

**Head of Department: Prof. Mona H. Hetta**

**Date: 07/01/2018**

**Course Specifications**
**(2018 – 2019)**

# Course: Therapeutics 1

# Course code: PO 905

**Course Specifications**
**(2018 – 2019)**

## A. Basic Information

| | |
|---|---|
| Program(s) on which the course is given: | Clinical |
| Department offering the course | Pharmacology & toxicology |
| Faculty offering the program | Faculty of pharmacy |
| Dept. responsible for teaching the course | Pharmacology & toxicology |
| Academic year / level | 5 level |
| Course title | Therapeutics 1 |
| Course code | PO 905 |
| Contact hours (credit hours) | 3 |
| Pre-requisite of the course: | Pharmacology 2 |
| Course coordinator | Dr Mohamed Hamzawy |
| Date of specification approval | /09/2018 |

## B. Professional Information

### 1. Overall Aims of Course

The course aims to enhance the student's capacity of pharmacotherapeutic approaches for treatment different disorders ,and help them to provide the proper therapeutic regimens for patients with multi-morbid conditions or in special patients group .

### 2. Intended Learning Outcomes of Course (ILOs)

**a- Knowledge and Understanding:**

By the end of the course, the students should be able to:

a1. Know pharmacotherapeutic regimens of several diseases.

a2. Know pharmacotherapeutic requirements for treatment of neonates.

a3. Understand the non-pharmacological approaches in treatment of different disorders.

**b- Intellectual Skills**

b1. Solve the medical health problems that demonstrated in patients with special medical conditions.
b2.design therapeutic protocols for specific medical disorders.
b3. evaluate the effectiveness and output of individualized therapeutic approach for treatment of specific disorders .

By the end of this course, the student should be able to:

**c- Professional and Practical Skills**

c1. Apply the knowledge of the course into development of therapeutic modalities for different diseases.

c2. Select the most proper treatment approach for specific medical disorders .

c3. Estimate the medical conditions and impact of various medical treatment.

By the end of the course, the student should be able to:

**d- general Skills**
By the end of the course, the student should be able to:

d1. Have the power to work effectively in the team

d2. Show scientific and logical thinking approach in providing pharmacotherapeutic regimen.

## 3. Contents

| Teaching week | TOPIC | No. of lecture hours | No. of Practical hours | Total |
|---|---|---|---|---|
| 1 | Pharmacotherapy of neonate | 2 | 1 | 3 |
| 2 | Pharmacotherapy of rheumatoid arthritis | 2 | 1 | 3 |
| 3 | Pharmacotherapy of gout and osteoarthritis | 2 | 1 | 3 |

| | | | | |
|---|---|---|---|---|
| 4 | Pharmacotherapy of acute kidney disease | 4 | 2 | 6 |
| 5 | Pharmacotherapy of chronic kidney disease | 4 | 2 | 6 |
| 6 | Gene therapy | 4 | 2 | 6 |
| 7 | Pharmacotherapy of glaucoma | 2 | 1 | 3 |
| 8 | Blood disorders | 4 | 2 | 6 |
| | Total | 24 | 12 | 36 |

## 4. Teaching and Learning Methods

-Lectures (board, data show)

- practical sections

- Open discussion

-Assignments

-Role plays

## 5. Student Assessment Methods and weighing:

- written exams evaluate the levels of knowledge and understanding and intellectual skills .

- periodic exams evaluate the levels knowledge and understanding the intellectual skills

- practical exams evaluate the levels of the practical skills

-oral exams evaluate the levels of knowledge and understanding and intellectual skills

- class participation :10%

- practical exam :25%

- Oral exam :15%

-final exam 50%

## Assessment Schedule

| | |
|---|---|
| Quiz 1 | week4-5 |
| Quiz 2 | week 8-9 |
| Practical exam | week 12 |
| Oral exam | according to semester schedule |

Final exam according to semester schedule

## 6. List of References

**6.1- Course Notes: applied therapeutic for pharmacy students**

**6.2- required books: roger wolker and cate wittlesea**

**Clinical pharmacy and therapeutics, 5th edition**

**6.3- recommended books: Koda Kimble, applied therapeutics: the clinical use of drugs ,10th edition**

**6.4- periodicals: clinical therapeutics journal.**

## Facilities required for teaching and learning

1. Lecture rooms with data show

2. Procurement of latest edition of the above-mentioned texts and others to update the education process

**Course Coordinator: Dr. Mohamed Hamzawy**

**Head of Department: Ass.prof. Mona El-Naaa**

**Date:** /09/2018

# Course Specifications

## Good Manufacturing Practices

## (PT E12)

# Elective Course

Fayoum University

Clinical Pharmacy Program

# Course Specification

| A-Basic Information | |
|---|---|
| **Course code:** | PT E12 |
| **Course name:** | Good manufacturing practice |
| **Credit hours of the course:** | Lecture:2<br>Practical: 0<br>Total: 2 |
| **Pre-requisite of the course:** | Registration |
| **Department teaching the course:** | Pharmaceutics |
| **Program for which the course is given:** | Clinical Pharmacy Program |
| **Course Co-coordinator:** | Dr. Doaa Helal |
| **Head of the Department:** | Prof Dr. Mona Hetta |
| **Date of specifications approval:** | 12/1/2019 |

## B-Professional Information

### 1- Overall aims of the course:

By the end of this course the students should be able to:
to provide students with a comprehensive understanding of **quality control, regulatory compliance,** and **manufacturing best practices** across various industries, particularly those governed by strict regulatory frameworks such as pharmaceuticals, food production, and consumer goods. The course is designed to equip students with the theoretical knowledge and practical skills necessary to implement, manage, and optimize quality control systems, ensure compliance with industry regulations, and uphold high standards of safety, efficiency, and accountability throughout the production and distribution processes.

### 2-intended learning outcomes (ILO'S)

### a- knowledge and understanding

by the end of this course, the student should be able to :

A1. Define and explain key concepts in quality control and regulatory **compliance**, including terminology, standards, and principles used across manufacturing industries (e.g., Good Manufacturing Practices (GMP), International Organization for Standardization (ISO), and regulatory bodies like the FDA).
A2. Understand the regulatory frameworks that govern different industries, with a focus on the specific requirements for compliance in sectors like pharmaceuticals, food production, and consumer goods.
A3Describe the core components of production and process control systems, including the methods and tools used for process monitoring, quality testing, validation, and ensuring the consistency and safety of manufactured products.

**B. intellectual Skills**

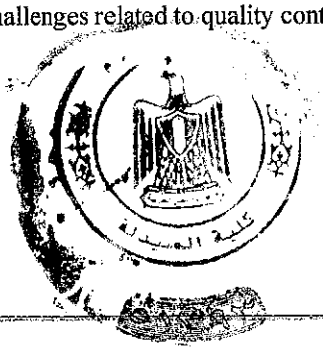
By the end of this course, students should be able to:
B1.Critically evaluate regulatory frameworks and standards in manufacturing industries (e.g., GMP, FDA, ISO), assessing their relevance, effectiveness, and application in maintaining product quality and ensuring compliance.
B2.Analyze production and process data to identify areas of improvement, potential risks, and opportunities for optimization in manufacturing processes. This includes interpreting process control charts, statistical data, and quality assurance metrics.
B3.Develop solutions to quality-related problems by applying theoretical concepts to practical scenarios, demonstrating the ability to propose corrective actions for quality control failures, deviations, or non-compliance issues.

**C-Professional and Practical Skill**

By the end of this course, students should be able to:
C1.Implement quality control procedures within manufacturing settings, including setting up and maintaining systems for monitoring product quality, conducting inspections, and using statistical tools to assess process performance and outcomes.
C2.Conduct laboratory tests to assess product quality, following Good Laboratory Practices (GLP) and industry-specific testing standards. This includes performing validation tests, stability tests, and sample analysis to ensure compliance with regulatory standards.
C3.Apply regulatory guidelines (such as GMP, ISO, and FDA regulations) to real-world manufacturing situations, ensuring that processes, facilities, and products adhere to required standards and pass regulatory audits and inspections.

**D-General Skills**:

By the end of this course, the student should be able to:
D1.Communicate effectively in professional contexts, both orally and in writing, by presenting complex information about quality control, regulatory compliance, and manufacturing processes in a clear, concise, and structured manner to diverse audiences, including colleagues, regulators, and management.
d2. Work independently and manage time efficiently, demonstrating the ability to plan, prioritize, and complete tasks related to quality assurance and compliance within specified deadlines, while maintaining a high standard of work.D3. Apply critical thinking and problem-solving skills to real-world scenarios, using evidence-based reasoning to address challenges related to quality control, regulatory compliance, and product safety



| 3- Course contents: | | | |
|---|---|---|---|
| **Topic** | **No. of hours** | | |
| | **Lecture** | **Practical** | **Total** |
| Introduction to Quality Control and Regulatory Compliance | 2 | 0 | 2 |
| Regulatory Frameworks and Compliance Standards | 2 | 0 | 2 |
| Production and Process Control Systems | 2 | 0 | 2 |
| Packaging and Labelling Compliance | 2 | 0 | 2 |
| Laboratory Controls and Good Laboratory Practices (GLP) | 1 | 0 | 1 |
| Distribution and Supply Chain Compliance | 1 | 0 | 1 |
| Audits, Inspections, and Regulatory Reporting | 1 | 0 | 1 |
| Compliance Challenges and Industry Best Practices | 1 | 0 | 1 |
| Total | 12 | 0 | 12 |

| **4- Teaching and Learning Methods (lectures, open discussion, role plays…etc.):** |
|---|
| - Lectures, using Power point presentation<br>- Open discussion |

| **a- Assessment Methods and Weighing** |
|---|
| - Class participation: 10%<br>- Practical Exam: --<br>- Oral Exam :--<br>- Final Exam: 90% |
| **b- Assessment Schedule:** |
| - Class participation: Quiz 1: Week 4-5<br>Quiz 2: Week 8-9<br>Other activities: throughout the semester<br>- Practical Exam: --<br>- Final Exam: According to semester timetable |

Course Coordinator: Dr. Doaa Helal

Head of Department: Prof. Dr. Mona Hetta

Date: 11/2/2019

Fayoum University

Faculty of Pharmacy

**Clinical Pharmacy Program**
**(2018-2019)**

## Course Specifications

| **A-Basic Information** | |
|---|---|
| **Course code:** | **PO 007** |
| **Course name:** | **Therapeutics 2** |
| **Credit hours of the course:** | Lecture: 2<br>Practical:1<br>Total:3 |
| **Pre-requisite of the course:** | Pharmacology 2 |
| **Department teaching the course:** | Pharmacology & Toxicology |
| **Program for which the course is given:** | Clinical Pharmacy Program |
| **Course Co-ordinator:** | Dr. Mohamed Hamzawy |
| **Head of the Department:** | Ass. Prof. Mona El Naa |
| **Date of specifications approval:** | 07/09/2018 |

| **B-Professional Information** |
|---|
| **1-Overall aims of the course:** |
| The course aims to enhance the student's capacity of pharmacotheraputic approaches for treatment different disorders, and help them to provide the proper therapeutic regimens for patients with multi-morbid conditions or in special patients group. |
| **2-Intended learning outcomes (ILO's):** |
| **a-Knowledge and Understanding:**<br>By the end of this course, the student should be able to: |

a1-Know Pharmacotheraputic regimens of several diseases.

a2-Know pharmacotheraputic requirements for treatment of adrenal disorders, women disorders and endocrinal diseases.

a3-Understand the non-pharmacological approaches in treatment of different disorders.

**b-Intellectual Skills:**

By the end of this course, the student should be able to:

b1-Solve the medical health problems that demonstrated in patients with special medical conditions.

b2-Design therapeutic protocols for specific medical disorders such as diabetes mellitus, erectile dysfunction.

b3-Evaluate the effectiveness and output of individualized therapeutic approach for treatment of specific disorders.

**c-Professional and Practical Skills:**

By the end of this course, the student should be able to:

c1-Apply the knowledge of the course into development of therapeutic modalities for different diseases.

c2-Select the most proper treatment approach for specific medical disorders.

c3-Estimate the medical conditions and impact of various medical treatment.

**d-General Skills:**

By the end of this course, the student should be able to:

d1-Have the power to work effectively in the team.

d2-Show scientific and logical thinking approach in providing pharmactheraputic regimen.

**3-Course contents:**

| | No of hours | | |
|---|---|---|---|
| | Lecture | Practical | Total |
| Adrenal gland Disorder | 2 | 1 | 3 |

| | | | |
|---|---|---|---|
| Adrenal gland Disorder | 2 | 1 | 3 |
| Thyroid gland Disorders | 2 | 1 | 3 |
| Adrenal gland Disorder | 2 | 1 | 3 |
| Diabetes Mellitus | 2 | 1 | 3 |
| Diabetes Mellitus and other endocrine disorders | 2 | 1 | 3 |
| Pituitary gland Disorders | 2 | 1 | 3 |
| Thyroid gland Disorders | 2 | 1 | 3 |
| Prostatic hyperplasia and disorders | 2 | 1 | 3 |
| Erectile dysfunctions | 2 | 1 | 3 |
| Women Health | 2 | 1 | 3 |
| Women Health | 2 | 1 | 3 |
| Calcium metabolism Disorders | 2 | 1 | 3 |
| **Total** | **24** | **12** | **36** |

**4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):**

- Lectures.
- Practical sections.
- Open discussion.
- Assignments.
- Role plays.

**5- Student Assessment:**

**a-Assessment Methods and Weighing:**

- Written exams evaluate the levels of knowledge and understanding and Intellectual Skills.
- Periodic exams evaluate the levels knowledge and understanding and Intellectual Skills.

| |
|---|
| - Practical exams evaluate the levels of the practical Skills.<br>- Oral exams evaluate the levels knowledge and understanding and Intellectual Skills.<br>- Class participation: 10. %<br>- Practical exam: 25 %<br>- Oral exam: 15. %<br>- Final exam: 50. % |
| **b-Assessment Schedule:** |
| - Class participation: Quiz 1: Week 4-5<br>Quiz 2: Week 8-9<br>Other activities: throughout the semester<br>- Practical exam: Week 12<br>- Oral exam: According to semester timetable<br>- Final exam: According to semester timetable |

| **6-List of References:** | |
|---|---|
| Course Notes | Applied Therapeutic for Pharmacy Students |
| Required Books | Roger Wolker and Cate Wittlesea, Clinical Pharmacy and Therapeutics, 5th Edition. |
| Recommended Books | Koda-Kimble, Applied Therapeutics: The Clinical Use of Drugs, 10th Edition. |
| Periodicals | Clinical Therapeutics Journal |
| Web Sites | https://www.medscape.com/ |

**Course Coordinator: Dr.Mohamed Hamzawy**

**Head of Department: Ass. Prof. Mona El-Naaa**

**Date: /09/2018**

Fayoum University

Faculty of Pharmacy

Clinical Pharmacy Program

## Course Specifications

| A-Basic Information | |
|---|---|
| **Course code:** | PP 010 |
| **Course name:** | Treatment of dermatological and reproductive diseases |
| **Credit hours of the course:** | Lecture: 1h<br>Practical: 1h<br>Total:2h |
| **Pre-requisite of the course:** | Pathology, pharmacology-2 |
| **Department teaching the course:** | Department of pharmacy practice |
| **Program for which the course is given:** | Clinical Pharmacy Program |
| **Course Co-ordinator:** | Dr. Azza Mansy |
| **Head of the Department:** | Prof. Mona Hetta |
| **Date of specifications approval:** | 01/2019 |

| B-Professional Information |
|---|
| **1-Overall aims of the course:** |
| This course aims to familiarizing the student with the most popular skin diseases, bacterial, viral and fungal disease , their medications, the most updated guidelines for treatment theses diseases. |
| **2-Intended learning outcomes (ILO's):** |
| **a-Knowledge and Understanding:**<br>By the end of this course, the student should be able to: |

a1-Know some of the most popular diseases in **dermatology and reproductive** system

a2-Know list of guidelines for treatment of each of the studied disease.

a3-Understand the process of patient monitoring for major diseases.

**b-Intellectual Skills:**

By the end of this course, the student should be able to:

b1-Solve some of the patient problems related to studied diseases.

b2-Design a treatment diagram for studied diseases.

b3-Evaluate optimal drug therapy for minimizing drug therapy problems.

**c-Professional and Practical Skills:**

By the end of this course, the student should be able to:

c1-Apply the benefit risk ratio according to patient case.

c2-Select the most effective and appropriate drug with the least adverse events for the studied diseases.

c3 Implement a self-patient monitoring system for achievement of desired therapeutic outcomes.

**d-General Skills:**

By the end of this course, the student should be able to:

d1-Have the power to communicate with patients, caregivers, other health care professionals, and the public using appropriate listening, verbal, nonverbal and written communication skills.

d2-Show informations gained about ethics for exhibiting a caring and respectful attitude.

**3-Course contents:**

| Topic | Lecturer | No. of hours | | |
|---|---|---|---|---|
| | | Lecture | Practical | Total |
| Introduction to dermatological diseases. | Dr. Azza Mansy | 4h | 2h | 6 |

| | | | | |
|---|---|---|---|---|
| Dermatologic Drug Reactions and Self-Treatable Skin Disorders. | Dr. Azza Mansy | 4h | 2h | 6 |
| Acne Vulgaris | Dr. Azza Mansy | 4h | 2h | 6 |
| Psoriasis | Dr. Marwa Kamal | 4h | 2h | 6 |
| Psoriasis management | Dr. Marwa Kamal | 4h | 2h | 6 |
| Atopic Dermatitis | Dr. Marwa Kamal | 4h | 2h | 6 |
| **Total** | | **24** | | **36** |

**4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):**

- Case study
- Active learning
- Self-Learning
- Interactive lectures&Open discussions
- Group-based learning for patient counseling

**5- Student Assessment:**

**a-Assessment Methods and Weighing:**

- Quizzes: 10%
- Class participation: 5 %
- Practical exam: 20 %
- Oral exam: 15 %
- Final exam: 50%

**b-Assessment Schedule:**

- Class participation: Quiz 1: Week 4-5
  Quiz 2: Week 8-9
  Other activities: throughout the semester
- Practical exam: Week 13-14
- Oral exam: According to semester timetable
- Final exam: According to semester timetable

| 6-List of References: | |
|---|---|
| Course Notes | |
| Required Books | Pharmacotherapy A Pathophysiologic approach |
| Recommended Books | Pharmacotherapy principal and practice |
| Periodicals | |
| Web Sites | www.pubmed.com<br>www.drugs.com |

**Course Coordinator: Dr. Azza Mansy**

**Head of Department: Prof. Mona Hetta**

**Date: 01/2019**

## Course Specifications

| A-Basic Information | |
|---|---|
| **Course code:** | PP013 |
| **Course name:** | Gastroentrology |
| **Credit hours of the course:** | Lecture: 2h<br>Practical: 1h<br>Total:3h |
| **Pre-requisite of the course:** | Pathology, pharmacology-2 |
| **Department teaching the course:** | Department of pharmacy practice |
| **Program for which the course is given:** | Clinical Pharmacy Program |
| **Course Co-ordinator:** | Dr. Azza mansy |
| **Head of the Department:** | Prof. Mona Hetta |
| **Date of specifications approval:** | 01/2019 |

| B-Professional Information |
|---|
| **1-Overall aims of the course:** |
| This course aims to familiarizing the student with the most common GIT diseases, epidemiological aspects, symptoms and treatment. |
| **2-Intended learning outcomes (ILO's):** |
| **a-Knowledge and Understanding:**<br>By the end of this course, the student should be able to:<br>a1-Know some of the most common diseases in respiratory system |

a2-Know list of guidelines for treatment of each of the studied disease.

a3-Understand the process of patient monitoring for major diseases.

**b-Intellectual Skills:**

By the end of this course, the student should be able to:

b1-Solve some of the patient problems related to studied diseases.

b2-Design a treatment diagram for studied diseases.

b3-Evaluate optimal drug therapy for minimizing drug therapy problems.

**c-Professional and Practical Skills:**

By the end of this course, the student should be able to:

c1-Apply the benefit risk ratio according to patient case.

c2-Select the most effective and appropriate drug with the least adverse events for the studied diseases.

c3 Implement a self-patient monitoring system for achievement of desired therapeutic outcomes.

**d-General Skills:**

By the end of this course, the student should be able to:

d1-Have the power to communicate with patients, caregivers, other health care professionals, and the public using appropriate listening, verbal, nonverbal and written communication skills.

d2-Show informations gained about ethics for exhibiting a caring and respectful attitude.

**3-Course contents:**

| Topic | Lecturer | No. of hours | | |
|---|---|---|---|---|
| | | Lecture | Practical | Total |
| Evaluation of the Gastrointestinal Tract. | Dr. Azza Mansy | 2 | 1 | 3 |
| Gastroesophageal Reflux Disease | Dr. Azza Mansy | 2 | 1 | 3 |
| Peptic Ulcer Disease | Dr. Azza Mansy | 4 | 2 | 6 |

| | | | | |
|---|---|---|---|---|
| Inflammatory Bowel Disease | Dr. Azza Mansy | 2 | 1 | 3 |
| Portal Hypertension and Cirrhosis | Dr. Azza Mansy | 2 | 1 | 3 |
| Drug-Induced Liver Disease | Dr. Marwa Kamal | 4 | 2 | 6 |
| Pancreatitis | Dr. Marwa Kamal | 2 | 1 | 3 |
| Viral Hepatitis | Dr. Marwa Kamal | 2 | 1 | 3 |
| Drug Therapy Individualization in Patients with Hepatic Disease | Dr. Marwa Kamal | 4 | 2 | 6 |
| **Total** | | **24** | **12** | **36** |

**4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):**

- Case study
- Active learning
- Self-Learning
- Interactive lectures&Open discussions
- Group-based learning for patient counseling

**5- Student Assessment:**

**a-Assessment Methods and Weighing:**

- Quizzes: 10%
- Class participation: 5 %
- Practical exam: 20 %
- Oral exam: 15 %
- Final exam: 50%

**b-Assessment Schedule:**

- Class participation: Quiz 1: Week 4-5
  Quiz 2: Week 8-9
  Other activities: throughout the semester
- Practical exam: Week 13-14
- Oral exam: According to semester timetable
- Final exam: According to semester timetable

| 6-List of References: | |
|---|---|
| Course Notes | |
| Required Books | Pharmacotherapy A Pathophysiologic approach |
| Recommended Books | Pharmacotherapy principal and practice |
| Periodicals | |
| Web Sites | www.pubmed.com<br>www.drugs.com |

**Course Coordinator: Dr Azza Mansy**

**Head of Department: Prof. Mona Hetta**

**Date: 01/2019**

## Course Specifications

| A-Basic Information | |
|---|---|
| **Course code:** | PP015 |
| **Course name:** | Drug information |
| **Credit hours of the course:** | Lecture: 1<br>Practical:0<br>Total:1 |
| **Pre-requisite of the course:** | Pharmacology-2 (PO802)<br>Clinical pharmacy-2 (PP805) |
| **Department teaching the course:** | Department of Pharmacy Practice |
| **Program for which the course is given:** | Clinical Pharmacy Program |
| **Course Co-ordinator:** | Dr. Azza Mancy |
| **Head of the Department:** | Prof. Dr. Mona Hetta |
| **Date of specifications approval:** | 7-9-2018 |

| B-Professional Information |
|---|
| **1-Overall aims of the course:** |
| By the end of this course, the students should be able to retrieve information efficiently; in relation to primary, secondary and tertiary sources, including information retrieval through on-line computer searches. They should also be able to criticize professionally the published literature. The students should be capable of studying and finding information independently. |

**2-Intended learning outcomes (ILO's):**

**a-Knowledge and Understanding:**

By the end of this course, the student should be able to:
a1-Know different sources of information (primary, secondary and tertiary).

a2- Describe the principles of pharmacoeconomics applications in pharmacy practice.

a3-Understand the void in health care system that necessitate the provision of timely, accurate, unbiased drug information by pharmacist

a4- identify the meaning and principles medical evidence base practice

**b-Intellectual Skills:**

By the end of this course, the student should be able to:
b1- Comprehends, assesses reliably scientific data, analyzes published literature in the medical and pharmacy practice.

b2-Evaluate the medical information from variable sources.

**c-Professional and Practical Skills:**

By the end of this course, the student should be able to:

c1-Apply their knowledge to assess drug interactions and adverse drug reactions for the proper selection of drugs in various disease conditions

c2-Select, collect, store and retrieve the medical information from trusted sources

c3- Apply information technology skills, including word processing, spreadsheet use, database use, archiving data and information retrieval through online computer searches, and internet communication.

**d-General Skills:**

By the end of this course, the student should be able to:
d1-Have the power to locate and download on-line data.

d2-Show the ability to study and find information independently

d3-show decision making abilities

d4- Demonstrate critical thinking, problem solving and decision making abilities.

d5- Managing his/her time effectively

| Topic | No. of hours | | |
|---|---|---|---|
| | Lecture | Practical | Total |
| Drug information evolution and practice -background introduction | 1 | 0 | 1 |
| Drug information centers(DIC) and poison control centers functions and structure | 1 | 0 | 1 |
| Systemic approach for effective response to a drug information request | 1 | 0 | 1 |
| Drug information resources (Primary, secondary and tertiary resources, the internet). | 1 | 0 | 1 |
| pharmacoeconomic analysis; needs, sources and principles | 1 | 0 | 1 |
| Pharmacoeconomic analysis modalities | 1 | 0 | 1 |
| Evidence based clinical practice guidelines | 1 | 0 | 1 |
| Evaluating and reporting medication misadventure | 2 | 0 | 2 |
| Pharmacovigillance | 1 | 0 | 1 |
| Evaluating epidemiological study design | 2 | 0 | 2 |
| **Total** | **12** | **0** | **12** |

| **4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):** |
|---|
| 1. assignment for responding to a requested drug information assignments<br>**2.** Interactive lectures & open discussions (Tools; board, data show)<br>**3.** Office hours for Probation Students |

| 5- Student Assessment: | |
|---|---|
| **a-Assessment Methods and Weighing:** | |
| - Class participation (two quizzes and assignment): 10%<br>- Oral exam: 15%<br>- Final exam: 75% | |
| **b-Assessment Schedule:** | |
| - Class participation: | Quiz 1: Week 4-5<br>Quiz 2: Week 8-9<br>Other activities: throughout the semester |
| - Practical exam: | Week 13-14 |
| - Oral exam: | According to semester timetable |
| - Final exam: | According to semester timetable |

| 6-List of References: | |
|---|---|
| Course Notes | Lectures notes prepared by instructors |
| Required Books | N/A |
| Recommended Books | drug information – a guide for pharmacist; 5th edition; Malone P.M et al ;2014 |
| Periodicals | Drug information journal |
| Web Sites | WWW.pharmacotherapyonline.com<br>www.medscape.com<br>www.biomednet.com |

**Course Coordinator:** Dr. Azza Mancy

**Head of Department:** Prof. Dr. Mona Hetta

**Date: 7-9-2018**

## Course Specifications

| A-Basic Information | |
|---|---|
| **Course code:** | PP014 |
| **Course name:** | Treatment of respiratory system disease |
| **Credit hours of the course:** | Lecture: 2h<br>Practical: 1h<br>Total:3h |
| **Pre-requisite of the course:** | Pathology, pharmacology-2 |
| **Department teaching the course:** | Department of pharmacy practice |
| **Program for which the course is given:** | Clinical Pharmacy Program |
| **Course Co-ordinator:** | Dr. Azza Mansy |
| **Head of the Department:** | Prof. Mona Hetta |
| **Date of specifications approval:** | 01/2019 |

| B-Professional Information |
|---|
| **1-Overall aims of the course:** |
| This course aims to familiarizing the student with some of infectious, occupational and immunological diseases, their medications, the most updated guidelines and as well as assessment of respiratory efficiency treatment. |
| **2-Intended learning outcomes (ILO's):** |
| **a-Knowledge and Understanding:**<br>By the end of this course, the student should be able to: |

a1-Know some of the most common diseases in respiratory system

a2-Know list of guidelines for treatment of each of the studied disease.

a3-Understand the process of patient monitoring for major diseases.

**b-Intellectual Skills:**

By the end of this course, the student should be able to:

b1-Solve some of the patient problems related to studied diseases.

b2-Design a treatment diagram for studied diseases.

b3-Evaluate optimal drug therapy for minimizing drug therapy problems.

**c-Professional and Practical Skills:**

By the end of this course, the student should be able to:

c1-Apply the benefit risk ratio according to patient case.

c2-Select the most effective and appropriate drug with the least adverse events for the studied diseases.

c3 Implement a self-patient monitoring system for achievement of desired therapeutic outcomes.

**d-General Skills:**

By the end of this course, the student should be able to:

d1-Have the power to communicate with patients, caregivers, other health care professionals, and the public using appropriate listening, verbal, nonverbal and written communication skills.

d2-Show informations gained about ethics for exhibiting a caring and respectful attitude.

**3-Course contents:**

| Topic | Lecturer | No. of hours | | |
|---|---|---|---|---|
| | | Lecture | Practical | Total |
| Introduction to Pulmonary Function Testing. | Dr. Azza Mansy | 4h | 2h | 6 |
| Asthma | Dr. Azza Mansy | 2h | 1h | 3 |

| | | | | |
|---|---|---|---|---|
| Chronic obstructive pulmonary disease (COPD) | Dr. Azza Mansy | 2h | 1h | 3 |
| Pulmonary Hypertension | Dr. Azza Mansy | 2h | 1h | 3 |
| Drug-Induced Pulmonary Diseases | Dr. Azza Mansy | 2h | 1h | 3 |
| Cystic Fibrosis | Dr. Marwa Kamal | 4h | 2h | 6 |
| Function and Evaluation of the Immune System | Dr. Marwa Kamal | 2h | 1h | 3 |
| Systemic Lupus Erythematosus | Dr. Marwa Kamal | 2h | 1h | 3 |
| Solid-Organ Transplantation | Dr. Marwa Kamal | 4h | 2h | 6 |
| **Total** | | **24** | **12** | **36** |

**4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):**

- Case study
- Active learning
- Self-Learning
- Interactive lectures&Open discussions
- Group-based learning for patient counseling

**5- Student Assessment:**

**a-Assessment Methods and Weighing:**

- Quizzes: 10%
- Class participation: 5 %
- Practical exam: 20 %
- Oral exam: 15 %
- Final exam: 50%

**b-Assessment Schedule:**

- Class participation: Quiz 1: Week 4-5
  Quiz 2: Week 8-9
  Other activities: throughout the semester
- Practical exam: Week 13-14
- Oral exam: According to semester timetable
- Final exam: According to semester timetable

| 6-List of References: | |
|---|---|
| Course Notes | |
| Required Books | Pharmacotherapy A Pathophysiologic approach |
| Recommended Books | Pharmacotherapy principal and practice |
| Periodicals | |
| Web Sites | www.pubmed.com<br>www.drugs.com |

**Course Coordinator:** Dr Azza Mansy

**Head of Department:** Prof. Mona Hetta

**Date:** 01/2019

Fayoum University
Faculty of Pharmacy
Quality Assurance Unit

جامعـــــــــة الفيوم
كلية الصيدلـــــــة
وحدة ضمان الجودة

# Course specification ٢٠١٨/٢٠١٩

## Course name : Management of pediatric diseases

**Fayoum university**

**Faculty of pharmacy**

**Program: Bachelor of Pharmacy ( Clinical Pharmacy Pharm D)**

**Department of Clinical Pharmacy**

## A- Course information:

| | |
|---|---|
| **Course Code:** | PP٠١٠ |
| **Course title:** | **Management of pediatric disease** |
| **Academic level/ Semester** | **Level ٥ / semester ١٠** |
| **Credit hours/ week** | Total: ٣ Lecture ٢ Practical ١ |
| **Pre-requisites for this course (if any)** | **Pharmacology- III** |
| **Course Coordinator** | Dr. Marwa Kamal |
| **Approval date** | ٠١/٢٠١٩ |

## B- Professional Information:

### ١- Course aims:

**By the end of this course, the student should be able to:**

١. Understand and explain the nutitional requirements in neonates and infants.
٢. Understand and explain the pathophysiology, etiology & diagnosis & management of nutritional disorders.
٣. Understand and explain the the neonatology.
٤. Understand and explain the Management of infectious disease in pediatric.
٥. Understand and explain the pathophysiology, etiology & diagnosis congenital heart disease.
٦. Understand and explain the pathophysiology, etiology & diagnosis of endocrine,neurological,haematological,renal and respiratory disorder.
٧. Understand and explain the pediatric emergencies.

مدير وحدة ضمان الجودة

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## ٢- Competencies, key elements and learning outcomes of the course:

| Domain | Competencies | NARS (٢٠١٧) Key Elements |
|---|---|---|
| **I- Fundamental Knowledge** | ١,١. Integrate knowledge from basic and applied pharmaceutical and clinical sciences to standardize materials, formulate and manufacture products, and deliver population and patient-centered care. | ١-١-١- Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.<br>١-١-٢- Utilize the proper pharmaceutical and medical terms, abbreviations and symbols in pharmacy practice.<br>١-١-٤- Articulate knowledge from fundamental sciences to explain drugs' actions and evaluate their appropriateness, effectiveness, and safety in individuals and populations. |
| **II- Professional and Ethical Practice** | ٢,١. Work collaboratively as a member of an inter-professional health care team to improve the quality of life of individuals and communities, and respect patients' rights. | ٢-١-١ Perform responsibilities and authorities in compliance with the legal and professional structure and role of all members of the health care professional team.<br>٢-١-٢ Adopt ethics of health care and pharmacy profession respecting patients' rights and valuing people diversity.<br>٢-١-٣ Recognize own personal and professional limitations and accept the conditions of referral to or guidance from other members of the health care team |
| | ٢,٢. Standardize pharmaceutical materials, formulate and manufacture pharmaceutical products, and participate in systems for dispensing, storage, and distribution of medicines. | ٢-٢-٤ Adopt the principles of pharmaceutical calculations, biostatistical analysis, bioinformatics, pharmacokinetics, and bio-pharmaceutics and their applications in new drug delivery systems, dose modification, bioequivalence studies, and pharmacy practice |

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| Domain | Competencies | NARS (٢٠١٧) Key Elements |
|---|---|---|
| | ٢,٣. Handle and dispose biologicals and synthetic/natural pharmaceutical materials/products effectively and safely with respect to relevant laws and legislations | ٢-٣-٢ Recognize and adopt ethical, legal, and safety guidelines for handling and disposal of biologicals, and pharmaceutical materials/products. |
| | ٢,٤. Actively share professional decisions and proper actions to save patient's life in emergency situations including poisoning with various xenobiotics, and effectively work in forensic fields | ٢-٤-١ Ensure safe handling/use of poisons to avoid their harm to individuals and communities.<br>٢-٤-٢ Demonstrate understanding of the first aid measures needed to save patient's life.<br>٢-٤-٣ Take actions to solve any identified medicine-related and pharmaceutical care problems |
| | ٢,٥. Contribute in pharmaceutical research studies and clinical trials needed to authorize medicinal products | ٢-٥-١ Fulfill the requirements of the regulatory framework to authorize a medicinal product including quality, safety, and efficacy requirements.<br>٢-٥-٢ Retrieve, interpret, and critically evaluate evidence-based information needed in pharmacy profession.<br>٢-٥-٣ Contribute in planning and conducting research studies using appropriate methodologies |
| | ٢,٦. Perform pharmacoeconomic analysis and develop promotion, sales, marketing, and business administration skills. | ٢-٦-١ Apply the principles of business administration and management to ensure rational use of financial and human resources.<br>٢-٦-٢ Utilize the principles of drug promotion, sales, marketing, accounting, and pharmacoeconomic analysis |
| **III- Pharmaceutical Care** | ٣,١. Apply the principles of body functions to participate in improving health care services using evidence-based data | ٣-١-٤ Relate etiology, epidemiology, pathophysiology, laboratory diagnosis, and clinical features of infections/diseases and their pharmacotherapeutic |

| Domain | Competencies | NARS (٢٠١٧) Key Elements |
|---|---|---|
| | | approaches. |
| | ٣,٢. Provide counseling and education services to patients and communities about safe and rational use of medicines and medical devices. | ٣-٢-١ Integrate the pharmacological properties of drugs including mechanisms of action, therapeutic uses, dosage, contra-indications, adverse drug reactions and drug interactions.<br>٣-٢-٢ Apply the principles of clinical pharmacology and pharmacovigilance for the rational use of medicines and medical devices. |
| IV- Personal Practice | ٤,١. Express leadership, time management, critical thinking, problem solving, independent and team working, creativity and entrepreneurial skills. | ٤-١-١ Demonstrate responsibility for team performance and peer evaluation of other team members, and express time management skills.<br>٤-١-٢ Retrieve and critically analyze information, identify and solve problems, and work autonomously and effectively in a team.<br>٤-١-٣ Demonstrate creativity and apply entrepreneurial skills within a simulated entrepreneurial activity |
| | ٤,٢. Effectively communicate verbally, non-verbally and in writing with individuals and communities. | ٤-٢-١ Demonstrate effective communication skills verbally, non-verbally, and in writing with professional health care team, patients, and communities.<br>٤-٢-٢ Use contemporary technologies and media to demonstrate effective presentation skills. |
| | ٤.٣. Express self-awareness and be a life-long learner for continuous professional improvement. | ٤-٣-١ Perform self-assessment to enhance professional and personal competencies.<br>٤-٣-٢ Practice independent learning needed for continuous professional development. |

## ٣. Course Contents:

| Week no. | Lecture (٢ credit hours /week) | Practical /tutorial (٢ credit hours /week) |
|---|---|---|
| ١ | Diabetes mellitus: pathophysiology, types, etiology & risk factors | jaundice: pathophysiology, types, etiology , risk factors and cases |
| ٢ | diagnosis & management of Gastroenteritis | diagnosis & management of diabetes mellitus cases |
| ٣ | pathophysiology, etiology & diagnosis & management of Viral hepatitis | Cases on Gastroenteritis |
| ٤ | FS &Status epilepticus and febrile convulsions | Viral hepatitis cases |
| ٥ | **Midterm Exam** | |
| ٦ | Management of Nutritional requirement and disorders | Cases on FS &Status epilepticus and febrile convulsions |
| ٧ | pathophysiology, etiology & diagnosis Rickets | Management of Nutritional requirement and disorders cases |
| ٨ | pathophysiology, etiology & diagnosis of Rheumatic fever | Cases about Rickets |
| ٩ | Neonatal respiratory distress | Rheumatic fever cases |
| ١٠ | Diagnosis & management Meningitis in pediatrics | Neonatal respiratory distress cases |

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| Week no. | Lecture (٢ credit hours /week) | Practical /tutorial (٢ credit hours /week) |
|---|---|---|
| ١١ | Diagnosis & management Otitis media in pediatrics | Practical exam |
| ١٢ | Pathophysiology, diagnosis & management of Attention-Deficit Hyperactivity Disorder in pediatrics | – |
| ١٣ | Final exam | |
| Total | ٢٨ credit hours | ٢٨ [١٤ credit hours] |
| Course Total Hours | ٤٢ credit hours | |

**٤. Teaching and learning methods:**

**Examples:**

١- Lectures
٢- Practical laboratory class (tutorial classes, practical training and demonstration)
٣- Training visits
٤- Self learning (Assignments, reports, poster or oral presentations).
٥- Summer training
٦- Assays and reviews
٧- Discussion groups
٨- Online learning and teaching (using platforms such as thinqi, Microsoft teams or zoom meetings to share material or provide supplementary explanations for students).
٩- Teaching and learning methods for students with special needs (please specify if any).

**٥. Student Assessment:**

| | |
|---|---|
| **a. Assessment Methods** | ١. Written Exams to assess outcomes ١-١-١ , ١-١-٢, ١-١-٤, ٣-١-٤, ٣-٢-١, ٣-٢-٢<br>٢. Practical exams to assess outcomes ١-١-١ , ١-١-٢, ١-١-٤, ٣-١-٤, ٣-٢-١, ٣-٢-٢<br>٣. Oral Exams to assess outcomes ١-١-١ , ١-١-٢, ١-١-٤, ٣-١-٤, ٣-٢-١, ٣-٢-٢<br>٤. Periodical (proposal, seminar, quiz) to outcomes ١-١-١ , ١-١-٢, ١-١-٤, ٣-١-٤, ٣-٢-١, ٣-٢-٢ |
| **b. Assessment Schedule** | **Assessment** / **Date**<br>Periodicals — Two times per semester<br>Practical exam — Week ١١<br>Written exam — Week١٣<br>Oral exam — Week ١٣ |
| **c. Assessments weights** | **Assessment** / **Marks** / **percentage**<br>Written exam — ٥٠ — ٥٠٪<br>Practical exam — ٢٥ — ٢٥%<br>Periodical — ١٥ — ١٥%<br>Oral exam — ١٠ — ١٠٪<br>**Total** — ١٠٠ — ١٠٠٪ |

## ٧. Facilities Required for Teaching and Learning:

**Examples:**

- **Classrooms.**
- **Laboratory facilities.**
- **white board, smart board, Data show.**
- **Library.**
- **Computers.**
- **Online educational platforms for teaching, discussing research projects and E-exams (Google classrooms, Google drive and Microsoft Teams).**

## ٨- Textbooks and references:

**٨,١. Student notebooks:**

Lecture and practical notes prepared by the stuff members of the department.

**٨,٢. Essential textbooks:**

.....

**٨,٣. Recommended textbooks:**

.....

**٨,٤. Journals, websites ……..etc.**

.....

**Course coordinator:**

| Name: Dr. Marwa Kamal | Signature: |
|---|---|

**Head of Department:**

| Name: Prof.Dr. Mona Hetta | Signature: |
|---|---|

**Date:** ٠١/٢٠١٩

## Course Specifications

| A-Basic Information | |
|---|---|
| **Course code:** | PP012 |
| **Course name:** | Treatment of cardiovascular disease disease |
| **Credit hours of the course:** | Lecture: 2h<br>Practical: 1h<br>Total:3h |
| **Pre-requisite of the course:** | Pathology, pharmacology-2 |
| **Department teaching the course:** | Department of pharmacy practice |
| **Program for which the course is given:** | Clinical Pharmacy Program |
| **Course Co-ordinator:** | Dr. Azza Mansy |
| **Head of the Department:** | Prof. Mona Hetta |
| **Date of specifications approval:** | 01/2019 |

| B-Professional Information |
|---|
| **1-Overall aims of the course:** |
| This course aims to familiarizing the student with disease comprising cardiovascular system, symptoms, prognosis drugs, selection, patients advice with hospital setting practice. |
| **2-Intended learning outcomes (ILO's):** |
| **a-Knowledge and Understanding:**<br>By the end of this course, the student should be able to: |

a1-Know some of the most common diseases in respiratory system

a2-Know list of guidelines for treatment of each of the studied disease.

a3-Understand the process of patient monitoring for major diseases.

**b-Intellectual Skills:**

By the end of this course, the student should be able to:

b1-Solve some of the patient problems related to studied diseases.

b2-Design a treatment diagram for studied diseases.

b3-Evaluate optimal drug therapy for minimizing drug therapy problems.

**c-Professional and Practical Skills:**

By the end of this course, the student should be able to:

c1-Apply the benefit risk ratio according to patient case.

c2-Select the most effective and appropriate drug with the least adverse events for the studied diseases.

c3 Implement a self-patient monitoring system for achievement of desired therapeutic outcomes.

**d-General Skills:**

By the end of this course, the student should be able to:

d1-Have the power to communicate with patients, caregivers, other health care professionals, and the public using appropriate listening, verbal, nonverbal and written communication skills.

d2-Show informations gained about ethics for exhibiting a caring and respectful attitude.

**3-Course contents:**

| Topic | Lecturer | No. of hours | | |
|---|---|---|---|---|
| | | Lecture | Practical | Total |
| Cardiovascular Testing | Dr. Azza Mansy | 4h | 2h | 6 |
| Cardiopulmonary Arrest | Dr. Azza Mansy | 2h | 1h | 3 |

| | | | | |
|---|---|---|---|---|
| Chronic obstructive pulmonary disease (COPD) | Dr. Azza Mansy | 2h | 1h | 3 |
| Hypertension | Dr. Azza Mansy | 2h | 1h | 3 |
| Heart Failure | Dr. Azza Mansy | 2h | 1h | 3 |
| Ischemic Heart Disease | Dr. Marwa Kamal | 4h | 2h | 6 |
| Acute Coronary Syndromes | Dr. Marwa Kamal | 2h | 1h | 3 |
| The Arrhythmias . | Dr. Marwa Kamal | 2h | 1h | 3 |
| Diastolic Heart Failure | Dr. Marwa Kamal | 2h | 1h | 3 |
| Venous Thromboembolism | Dr. Marwa Kamal | 2h | 1h | 3 |
| **Total** | | **24** | **12** | **36** |

**4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):**

- Case study
- Active learning
- Self-Learning
- Interactive lectures&Open discussions
- Group-based learning for patient counseling

**5- Student Assessment:**

**a-Assessment Methods and Weighing:**

- Quizzes: 10%
- Class participation: 5 %
- Practical exam: 20 %
- Oral exam: 15 %
- Final exam: 50%

**b-Assessment Schedule:**

- Class participation: Quiz 1: Week 4-5
  Quiz 2: Week 8-9
  Other activities: throughout the semester
- Practical exam: Week 13-14
- Oral exam: According to semester timetable

| | |
|---|---|
| - Final exam: | According to semester timetable |

| 6-List of References: | |
|---|---|
| Course Notes | |
| Required Books | Pharmacotherapy A Pathophysiologic approach |
| Recommended Books | Pharmacotherapy principal and practice |
| Periodicals | |
| Web Sites | www.pubmed.com<br>www.drugs.com |

**Course Coordinator: Dr. Azza Mansy**

**Head of Department: Prof. Mona El Naa**

**Date: 01/2019**