

In the Name of God

Islamic Republic of Iran
Ministry of Health and Medical Education
Deputy for Education
Clinical Pharmacy
Degree: Master of Science (MSc)

Total Course Credits

General courses: 4
Fundamental/core courses: 16
Elective courses: 4
Thesis: 4
Total: 28

Program Description

MSc Clinical Pharmacy is a postgraduate course for pharmacists looking to advance their clinical practice. This course is flexible and can be tailored to accommodate your clinical education needs whether you work in primary, secondary, or tertiary care.

The course has been designed by our dynamic team of healthcare professionals and academics. If you are beginning a career as a clinical pharmacist or changing your role to a more clinical perspective, MSc Clinical Pharmacy should be your next step in building your clinical responsibility. We hope that you will gain confidence in making effective, safe, clinical decisions; enhance your ability to deliver positive patient care, and use your knowledge to empower patients to more effectively manage their conditions.

Definition & Duration of the Training Program

Clinical pharmacy practice is the practice of pharmacy as part of a multidisciplinary healthcare team directed at achieving safe and rational use of drugs. This field is designed to educate students to improve clinical skills for the monitoring different aspects of the drug therapy, as well as their communication skills and professional relationships. This course will be offered in the form of a two-year program.

Aims and Objectives

- To promote community- oriented pharmacy educational system by training clinical pharmacists as academic members.
- To increase knowledge and clinical experience of students to meet the community needs.
- To design and provide clinical research projects for students.
- Active participation in clinical rounds in order to promote rational use of drugs.
- To enable students to play an active role in hospitals and community pharmacies.

- To implement the spirit of collaboration between clinical pharmacists and other health care professionals.
- To promote greater participation in educational and investigational hospital programs.

❖ Admission Requirements

- Candidates having Bachelor of Pharmacy (BSc) awarded by one of the domestic or overseas universities.

Applicants must also meet the English language requirements

Exclusive or special conditions related to the course at that university:

Tehran University of Medical Sciences is the leading university in the field of clinical pharmacy in Iran and regional countries, the clinical pharmacy practice in this university started in 1991 when clinical pharmacy professors who were graduated from prestigious pharmacy universities in United States of America joined the program and residency post PharmD program of clinical pharmacy officially initiated. Until now, more than 100 clinical pharmacy specialists have been graduated from this course and are practicing in various subspecialized fields in clinical pharmacy and academic positions.

Specific Competencies and Skills (Special Qualifications)

❖ Expected Competencies at the End of the Program

❖ General Competencies

- Pathophysiology knowledge
- Critical evaluation of the literature
- Patient assessment skill
- Communicate as a member of multidisciplinary team to provide best possible patient care
- identify drug related problems and solve them
- Educate patients and health care professionals
- Research project development

❖ Specific Competencies and Skills

- Pharmaceutical care in common chronic disease states
- Pharmaceutical care in perioperative and critical care patients
- Hospital pharmacy practice

When completing the online admissions application, you'll need to provide:

- Curriculum vitae (CV), comprehensive and current employment history, including clinical experience and two referees, who can be contacted over the application period
- Personal statement, 250-500 words, outlining purpose and goals for applying for the course
- Academic transcripts (as evidence of completion of a bachelor degree)
- Proof of residency status (copy of birth certificate, passport or visa)
- Proof of professional registration
- Proof of English language proficiency

Duration of the course in months /Educational objectives

- Clinical Pharmacy education lasts approximately 18 months for MSc degree.

✓ Special Regulations

- a. Theoretical courses:
 - i. Participation in the classes for the lectures
- b. Theoretical and practical courses:
 - i. Participation in the training workshop
- c. Clinical rotations:
 - i. Participation in clinical rounds
- d. Research Project
 - i. Project development and presentation is mandatory

❖ Ethical Considerations

The graduates should,

- Observe the Patient's Bill of Rights¹ when working with the patients.
- Strictly observe Biosafety and Patient Safety Rules* concerning the patients, personnel and workplace.
- Observe the Rulebook for Dress Code².
- Strictly observe the Regulations of Working with the Laboratory Animals³.
- Carefully preserve resources and equipment.

- Truly respect faculty members, the staff, classmates and other students and work for creating an intimate and respectful atmosphere.
- Observe social and professional ethical considerations in criticism.

*** Biosafety and Patient Safety Rules will be set out by the Educational Departments and will be available to the students.**

❖ **Educational Strategies, Methods and Techniques**

❖ **Assessment Methods**

- a. Theoretical courses:
 - i. Written exams at the end of the course
 - ii. The pass criteria for each exam are 50% of the total mark.
- b. Theoretical and practical courses:
 - i. Written Exam: 50%
 - ii. Group project: 50%
- c. Clinical rotations:
 - i. Exam: 30%
 - ii. Participation in team work: 30%
 - iii. Clinical skills: 30 %
 - iv. Communication skills: 10%
 - v.
- d. Research Project
 - i. Project development: 50%
 - ii. Project report: 50%

❖ **Periods of Assessment**

Students should take part at the end of term exams for each module separately
Some lectures may decide to take an additional exam in the midterm

The overall structure of the course

Modules Masters of pharmaceutical science in the field of Clinical pharmacy

Core Courses (16 Credits)

Pathophysiology 1 /Patient assessment skills (2 Credits)

Pathophysiology 2 /Patient assessment skills (2 Credits)

Advanced therapeutics (3 Credits)

Advanced Pharmacokinetic (2 Credits)

Seminars in Clinical Pharmacy (1 Credit)

Pharmacovigilance (1 Credit)

Hospital Pharmacy internship (1 Credit)

Clinical Pharmacy Rotations (4 Credits)

General Courses: (8 Credits)

	Title	Course Credits			Credit Hours			Prerequisite
		Total	Theoretical	Practical	Total	Theoretical	Practical	
1	Clinical Research Methods/ Introduction to clinical research	2	2	–	34	34	–	Basic statistics
2	Statistics in Clinical Research	2	2	–	34	34	–	Basic statistics, Mathematics
Total		4	4	–	68	68	–	

Elective Courses

Title	Credits
Specialized Clinical Practice	1
Advanced Diabetes Therapies	1
Pharmaceutical Care of Surgical Patients	1
Infectious diseases pharmacotherapy	1
Geriatric pharmacy practice	1
Mental health	1
Pediatrics	1
Cancer Awareness, Detection and Screening Services	1
Weight Management and Health Coaching	1
Pharmaceutical care of Critical Care patients	1

Section II- Courses details

COURSE NAME: Pathophysiology/Patient assessment skills

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 3

COURSE TYPE: Theoretical

PRE-REQUISITES: -

GENERAL AIMS:

- To enhance student's knowledge of pathophysiological basis, and mechanisms of common diseases, in order to gain a better understanding of disease pharmacotherapy.
- To provide students with the ability to correlate the symptoms and progression of diseases with the pathophysiology of these diseases.
- To provide students with the ability to utilize the knowledge of the disease to interpret clinical data and design treatment protocols.
- To provide the students with the basis for more advanced courses in pharmacotherapy.
- To enhance student's knowledge of assessing the patients' signs and symptoms and interpret this to their disease.

COURSE DESCRIPTION

A broad knowledge of pathophysiology is essential to properly understand health and disease states. Understanding pathophysiology will help clinical pharmacists to decide about medication with a pathophysiological approach.

Assessment of the patient (including a complete history and understanding of why they are seeking care) and assessment of their medications are vital to ensure appropriate medication management.

LEARNING OUTCOMES

Students will be able to:

- Understand the pathophysiology of common disease
- Correlate disease mechanisms with pharmacotherapy
- Predict the effect of certain factors on disease progression
- Analyse clinical cases based on their knowledge

CONTENT

Lectures

ASSESSMENT METHOD:

1. Exam: 80%
2. Group participation: 20%

Section II- Courses details

COURSE NAME: Advanced Therapeutics

NUMBER OF UNITS: 3

NUMBER OF CREDITS: 6

COURSE TYPE: Theoretical

PRE-REQUISITES: -

GENERAL AIMS:

- To further develop the application of pharmacotherapeutics principles and knowledge.

- To improve student's understanding of medication for the treatment of various diseases
- To get familiar with the latest evidence-based medical information and their use in clinical practice
- To understand medication safety and efficacy and balance these factors to improve patient care

COURSE DESCRIPTION

It includes a range of specialized areas of which clinical pharmacists are expected to have an understanding but in which they would not necessarily be expected to work, without further training. Content will include: internal medicine; specialized infectious diseases and their public health implications; transplant medicine; oncology; hematology; neurology; critical care; psychiatry; etc.

LEARNING OUTCOMES

Students will be able to:

- Use evidence based medicine to decide about medication management
- Learn how to choose best approaches for disease treatment based on their knowledge of drugs
- Understand pharmacotherapy of different diseases

CONTENT

Lectures

ASSESSMENT METHOD:

1. Exam: 80%
2. Group participation: 20%

COURSE NAME: Advanced Pharmacokinetic

NUMBER OF UNITS: 2

NUMBER OF CREDITS: 3

COURSE TYPE: Theoretical

PRE-REQUISITES: -

GENERAL AIMS:

- To learn clinical pharmacokinetics for monitoring pharmaceutical care for selected patients based on their specific pharmacotherapy, disease states and related factors, and treatment goals.
- To get familiar with the clinical pharmacokinetics and therapeutic drug monitoring

COURSE DESCRIPTION

Clinical pharmacokinetics is the process of applying pharmacokinetic principles to determine the dosage regimens of specific drug products for specific patients to maximize pharmacotherapeutic effects and minimize toxic effects. The influence of factors such as age, sex, diet, pathophysiologic conditions, and concomitant use of other drug products must be understood. The development of patients' individualized dosage regimens should be based on integrated findings from these data.

LEARNING OUTCOMES

Students will be able to:

- Learn how to design patient-specific drug dosage regimens based on the pharmacokinetics of the drugs and other related factors
- Learn how to recommend or schedule measurement of drug concentration in biological fluids
- Monitor and adjust dosage regimens
- Evacuate unusual patient response to drug therapy for possible pharmacokinetic cause

CONTENT

Lectures

ASSESSMENT METHOD:

1. Exam: 80%
2. Group participation: 20%

COURSE NAME: Pharmacovigilance

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 2

COURSE TYPE: Theoretical

PRE-REQUISITES: -

GENERAL AIM:

- To get familiar with adverse effects reporting, signal detection, and risk management to improve patient safety

COURSE DESCRIPTION

The Pharmacovigilance course builds on previous courses which highlighted the critical requirement for adverse event reporting when conducting clinical trials, and introduces the operational requirements and regulatory processes involved in the detection, assessment, understanding and prevention of adverse effects of drugs after they have been licensed for use.

Focus will be on drug safety monitoring, in accordance with national and international legislation and guidelines, as well as proactive strategies for risk management to improve patient safety.

LEARNING OUTCOMES

Students will be able to:

- Critically appraise the principles of Pharmacovigilance practice and the regulatory framework for clinical drug safety
- Distinguish safety reporting requirements in the pre-marketing, peri-approval, and post-marketing continuum
- Categorize the seriousness, expectedness, and causality of adverse events
- Discuss methods for signal detection and data mining, and apply the principles of pharmacoepidemiology

CONTENT

Lectures

ASSESSMENT METHOD:

1. Exam: 80%
2. Group participation: 20%

COURSE NAME: Clinical Research Methods/ Introduction to clinical research

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 3

COURSE TYPE: Theoretical, practical

PRE-REQUISITES: -

GENERAL AIM:

- To learn the basic of how to conduct a clinical research
- To get familiar with different aspects of article evaluation for use in evidence based medicine

COURSE DESCRIPTION

The course provides an overview to basic principles of clinical research design, including biostatistics; design and interpretation of diagnostic and predictive test studies; required and desired elements of clinical trial protocols. Students will also gain an understanding of the regulatory aspects of clinical research conduct and oversight, Good Clinical Practice (GCP), and ethical dimensions of clinical research

LEARNING OUTCOMES

Students will be able to:

- Evaluate articles in the field of pharmacy
- Learn how to interpret clinical researches for use in clinical practice
- Write a proposal for a clinical research

CONTENT

Lectures

ASSESSMENT METHOD:

1. Exam: 50%
2. Group project: 50%

COURSE NAME: Clinical Pharmacy Project

NUMBER OF UNITS: 2

NUMBER OF CREDITS: 6

COURSE TYPE: Theoretical, practical

PRE-REQUISITES: -

GENERAL AIM:

- To design, register, conduct, complete, and report a clinical research
- To enhance clinical and research expertise and gain hands-on experience of pharmacy practice research.

COURSE DESCRIPTION

The course provides a thesis project in the field of clinical pharmacy to apply the theoretical data of research management and practice the standards as a researcher. This module provides students with an in-depth understanding of contemporary methodologies in clinical pharmacy research. It includes a range of quantitative, qualitative, action research and mixed methods employed in pharmacy practice research in the modern era.

LEARNING OUTCOMES

Students will be able to:

- design and submit a project proposal
- enroll patient and collect data
- analyze, conclude and report the results

CONTENT

Research project

ASSESSMENT METHOD:

1. Project development: 50%
2. Project report: 50%

COURSE NAME: Hospital Pharmacy internship

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 3

COURSE TYPE: Practical

PRE-REQUISITES: -

GENERAL AIM:

- To practice pharmacy in hospitals, including both professional and administrative activities.

COURSE DESCRIPTION

This course will provide students an in-depth understanding of institutional pharmacy practice. It is the intent of this course to provide the foundation necessary for students to enter a hospital practice environment and have a clear understanding of the different departments and roles a pharmacist may participate in to effectively care for patients.

LEARNING OUTCOMES

Students will be able to:

- Enter a hospital practice environment
- Understand the role of hospital pharmacists
- Get familiar with the role for the pharmacist in sterile product preparation (clean rooms)

CONTENT

Lectures, hospital practice

ASSESSMENT METHOD:

1. Exam: 30%
2. Participation in team work: 30%
3. Clinical skills: 30 %
4. Communication skills: 10%

COURSE NAME: Clinical Pharmacy Mini Rotations

NUMBER OF UNITS: 2

NUMBER OF CREDITS: 6

COURSE TYPE: Practical

PRE-REQUISITES: -

GENERAL AIM:

- To practice of clinical pharmacy in different wards of hospitals
- To participate in clinical rounds as a member of multi-disciplinary team
- To identify drug related problems and provide solutions to address them

COURSE DESCRIPTION

This course includes rotations in different wards, each ward provides different skills for comprehensive medication management. Generally, this course provides a learning environment where students work with patients and other health care professionals to deliver direct patient care.

LEARNING OUTCOMES

Students will be able to:

- Communicate as a member of multidisciplinary team to provide best possible patient care
- Identify drug related problems and solve them
- Educate patients and health care professionals

CONTENT

Mini- Rotations

ASSESSMENT METHOD:

1. Exam: 20%
2. Participation in clinical round: 30%

3. Clinical skills: 30 %

4. Communication skills: 20%

COURSE NAME: Seminars in Clinical Pharmacy

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Presentation

PRE-REQUISITES: -

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care

COURSE DESCRIPTION

Each student will present a 30-minute PowerPoint case presentation including patient case information and a pertinent patient specific drug therapy topic. The preceptor must approve the case and topic selected by the student. Accompanying handout is optional for presentation.

LEARNING OUTCOMES

Students will be able to:

- Present a case and discuss different aspects of pharmaceutical care
- Talk about the case and justify the provided interventions for patient

CONTENT

Presentation

ASSESSMENT METHOD:

1. Clear and structured presentation: 20%
2. Knowledge about the case and related issues: 20%
3. Interactive and interesting presentation: 20%
4. Informative, practical and effective presentation: 20%
5. Design of slides: 10%
6. Effective answers to questions: 10 %

Section III: Optional units

Title	Units
Specialized Clinical Practice	1
Advanced Diabetes Therapies	1
Pharmaceutical Care of Surgical Patients	1
Infectious diseases pharmacotherapy	1
Geriatric pharmacy practice	1
Mental health	1
Pediatrics	1
Cancer Awareness, Detection and Screening Services	1
Weight Management and Health Coaching	1
Medication Therapy Management (MTM) clinic	1 credit

COURSE NAME: Specialized Clinical Practice

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: Clinical Pharmacy Rotations

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care

COURSE DESCRIPTION

This course is a supervised pharmacy experience where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in a specialized setting
- Discuss about the case and justify the provided interventions for patient

CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%
2. Interactive and interesting discussion: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %

COURSE NAME: Advanced Diabetes Therapies

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: Clinical Pharmacy Rotations

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care in diabetic patients

COURSE DESCRIPTION

This course is a supervised pharmacy experience in the diabetes setting where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in a diabetes setting
- Discuss about the case and justify the provided interventions for diabetic patients

CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%

2. Interactive and interesting discussion: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %

COURSE NAME: Pharmaceutical Care of Surgical Patients

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: -

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care in surgical settings

COURSE DESCRIPTION

This course is a supervised pharmacy experience in the surgical setting where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in a surgical setting
- Discuss about the case and justify the provided interventions for surgical patients

CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%
2. Interactive and interesting case discussion: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %

COURSE NAME: Infectious diseases pharmacotherapy

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: Clinical Pharmacy Rotations

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care in infectious disease settings

COURSE DESCRIPTION

This course is a supervised pharmacy experience in the infectious disease setting where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in an infectious disease setting
- Discuss about the case and justify the provided interventions for infectious disease patients

CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%
2. Interactive and interesting case discussion: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %

COURSE NAME: Geriatric pharmacy practice

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: Clinical Pharmacy Rotations

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care in geriatrics settings

COURSE DESCRIPTION

This course is a supervised pharmacy experience in the geriatrics setting where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in a geriatrics setting
- Discuss about the case and justify the provided interventions for geriatric patients

CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%
2. Interactive and interesting case discussion: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %

COURSE NAME: Mental health

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: Clinical Pharmacy Rotations

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care in mental health patients

COURSE DESCRIPTION

This course is a supervised pharmacy experience in the mental health patients where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in a Mental health patients
- Discuss about the case and justify the provided interventions for Mental health patients

CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%
2. Interactive and interesting case discussion: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %

COURSE NAME: Pediatrics

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: Clinical Pharmacy Rotations

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care in Pediatrics settings

COURSE DESCRIPTION

This course is a supervised pharmacy experience in the **Pediatrics** setting where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in a Pediatrics setting
- Discuss about the case and justify the provided interventions for Pediatric patients

CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%
2. Interactive and interesting case discussion: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %

COURSE NAME: Cancer Awareness, Detection and Screening Services

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: Clinical Pharmacy Rotations

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care in oncology settings

COURSE DESCRIPTION

This course is a supervised pharmacy experience in the oncology setting where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in a oncology setting
- Discuss about the case and justify the provided interventions for oncology patients

CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%
2. Interactive and interesting case discussion: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %

COURSE NAME: Weight Management and Health Coaching

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: Clinical Pharmacy Rotations

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care in obesity management settings

COURSE DESCRIPTION

This course is a supervised pharmacy experience in the obesity management settings where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in an obesity management settings
- Discuss about the case and justify the provided interventions for overweight and obese patients

CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%
2. Interactive and interesting case discussion: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %

COURSE NAME: Medication therapy management. (MTM)

NUMBER OF UNITS: 1

NUMBER OF CREDITS: 1

COURSE TYPE: Practical

PRE-REQUISITES: Medication therapy management Rotations

GENERAL AIM:

- To present a patient case and discuss different aspects and provided interventions to improve patient care in out-patients settings

COURSE DESCRIPTION

The elective course was designed to prepare students to counsel patients during the delivery of medication therapy management. The course required students to possess pharmacotherapy knowledge, explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug

therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

LEARNING OUTCOMES

Students will be able to:

- Practice clinical pharmacy in an out-patients settings
- Discuss about the case and justify the provided interventions for out-patients CONTENT

Clinical rotation

ASSESSMENT METHOD:

1. Information about the case and related issues: 40%
2. Interactive and interesting case discussion and patient education: 20%
3. Integrative, practical and effective intervention: 20%
4. Documentations: 10%
5. Effective answers to questions: 10 %