

Republic of Yemen

Ministry of Higher Education & Scientific Research

Emirates International University



**Faculty of Medicine and Health Science**

**Department of Clinical Pharmacy**

**Bachelor of Pharm D**

**Course Specification of Pharmacotherapy Module  
III: Psychiatry/Neurology**

**Course No. (PP 503)**

Prepared by:

Dr. Mogeab Al-nahari

Reviewed by:

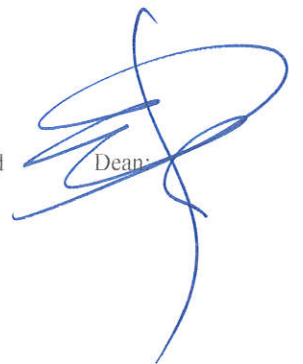
Dr. Mohammed  
Al-Khawlane

Head of the Department:



Quality Assurance head

Dean:



## I. Course Identification and General Information:

|    |   |  |                     |                 |                   |
|----|---|--|---------------------|-----------------|-------------------|
| 1  | <b>Course Title:</b>  | Pharmacotherapy Module<br>III:Psychiatry/Neurology |                     |                 |                   |
| 2  | <b>Course Code &amp; Number:</b>                              | PP 503   |                     |                 |                   |
| 3  | <b>Credit Hours:</b>  | <b>Credit Hours</b>                                | <b>Theory Hours</b> |                 | <b>Lab. Hours</b> |
|    |   |  | <b>Lecture</b>      | <b>Exercise</b> |                   |
|    |   | 2  | 2                   | --              | --                |
| 4  | <b>Study Level/ Semester at which this Course is offered:</b> | 5 Level / 1Semester                                |                     |                 |                   |
| 5  | <b>Pre –Requisite (if any):</b>                               | Pharmacology III                                   |                     |                 |                   |
| 6  | <b>Co –Requisite (if any):</b>                                | None   |                     |                 |                   |
| 7  | <b>Program (s) in which the Course is Offered:</b>            | Bachelor of Pharm D                                |                     |                 |                   |
| 8  | <b>Language of Teaching the Course:</b>                       | English  |                     |                 |                   |
| 9  | <b>Study System:</b>  | Semester based System                              |                     |                 |                   |
| 10 | <b>Mode of Delivery:</b>                                      | Full Time  |                     |                 |                   |
| 11 | <b>Location of Teaching the Course:</b>                       | Faculty of Medical sciences                        |                     |                 |                   |
| 12 | <b>Prepared by:</b>   | Dr. Mogeab Al-nahari                               |                     |                 |                   |
| 13 | <b>Date of Approval:</b>                                      |  |                     |                 |                   |

## II. Course Description:

The course content is complementary to pathophysiology and pharmacology courses and is supportive for pharmaceutical care and cases study courses. The course content aims to understand the knowledge of the pathophysiology, clinical manifestations, and therapeutics (clinical uses, pharmacokinetics, clinically significant side effects, drug interactions and contraindications to medications) of selected Neurologic Disorders/ Psychiatric Disorders .

| III. Course Intended Learning Outcomes (CILOs) : <b>(maximum 8)</b><br>Upon successful completion of the course, students will be able to: |  | Referenced PILOs<br>Learning out of program |              |
|--|--|---|--------------|
| <b>A. Knowledge and Understanding:</b>   |  | I, A<br>or E                                |              |
| a1   | Define the clinical manifestations, pathophysiology, diagnosis, and complication of Neurologic Disorders/ Psychiatric Disorders/ .       | I   | A1           |
| a2   | List the target goals of treatment for Neurologic Disorders/ Psychiatric Disorders/ .  | I   | A5, A8, A10  |
| <b>B. Intellectual Skills:</b>   |  |   |              |
| b1   | Construct rational drugs therapy and monitoring plan for Neurologic Disorders/ Psychiatric Disorders/ .                                  | E   | B3, B7,B8,B9 |
| <b>C. Professional and Practical Skills:</b>   |  |   |              |
| c1   | Use properly drug regimens and monitoring parameters to achieve targeted treatment goals of Neurologic Disorders/ Psychiatric Disorders/ | A   | C5, C8       |
| <b>D. Transferable Skills:</b>   |  |   |              |
| d1   | Search efficiently for required medical information from professional medical references and sites                                       | A   | D5           |
| d2   | Communicate effectively with healthcare professionals and patients   | A   | D1, D3       |

**(a) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies**





| Course Intended Learning Outcomes   | Teaching strategies                   | Assessment Strategies      |
|---|---------------------------------------|----------------------------|
| <b>a1-</b> Define the clinical manifestations, pathophysiology, diagnosis, and complication of Neurologic Disorders/ Psychiatric Disorders/ . | Lecture<br>Discussions<br>Office hour | Exam<br>Assignment<br>Quiz |
| <b>a2-</b> List the target goals of treatment for Neurologic Disorders/ Psychiatric Disorders/ .  | Lecture<br>Discussions<br>Office hour | Exam<br>Assignment<br>Quiz |

**(b) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:**

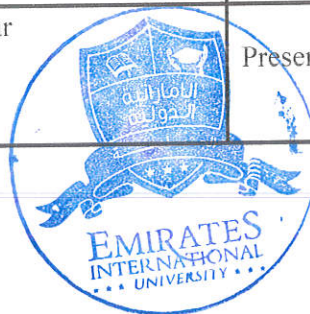
| Course Intended Learning Outcomes  | Teaching strategies                   | Assessment Strategies      |
|--|---------------------------------------|----------------------------|
| <b>b1-</b> Construct rational drugs therapy and monitoring plan for Neurologic Disorders/ Psychiatric Disorders/ . | Lecture<br>Discussions<br>Office hour | Exam<br>Assignment<br>Quiz |

**(c) Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:**

| Course Intended Learning Outcomes   | Teaching strategies                   | Assessment Strategies      |
|---|---------------------------------------|----------------------------|
| <b>C1-</b> Use properly drug regimens and monitoring parameters to achieve targeted treatment goals of Neurologic Disorders/ Psychiatric Disorders/ . | Lecture<br>Discussions<br>Office hour | Exam<br>Assignment<br>Quiz |

**(d) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:**

| Course Intended Learning Outcomes   | Teaching strategies      | Assessment Strategies      |
|---|--------------------------|----------------------------|
| <b>d1-</b> Search efficiently for required medical information from professional medical references and sites | Self-Learning<br>Seminar | Presentation<br>Assignment |
| <b>d2-</b> Communicate effectively with healthcare professionals and patients                                 | Seminar                  | Presentation               |



## IV. Course Content:

### A – Theoretical Aspect:

| Order | Units/Topics List                  | Learning Outcomes          | Sub Topics List   | Number of Weeks | Contact Hours |
|-------|------------------------------------|----------------------------|---|-----------------|---------------|
| 1     | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1, d 2 | <p>Introduction to Psychiatric and Neurological Disorders</p> <ul style="list-style-type: none"> <li>Overview of common psychiatric and neurological disorders</li> <li>Role of pharmacotherapy in the management of psychiatric and neurological conditions</li> <li>Ethical considerations and challenges in psychiatric and neurological pharmacotherapy</li> </ul>                          | 1               | 2             |
| 2     | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1, d 2 | <p>Neurotransmitters and Psychotropic Medications</p> <ul style="list-style-type: none"> <li>Introduction to neurotransmitters and their role in psychiatric and neurological disorders</li> <li>Pharmacological agents targeting neurotransmitter systems</li> <li>Mechanisms of action, therapeutic uses, and side effects of psychotropic medications</li> </ul>                             | 1               | 2             |
| 3     | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1      | <p>Mood Disorders and Antidepressant Therapy</p> <ul style="list-style-type: none"> <li>Pharmacotherapy for major depressive disorder and bipolar disorder</li> <li>Antidepressant classes, including SSRIs, SNRIs, tricyclic antidepressants, and MAOIs</li> <li>Monitoring parameters, therapeutic response, and managing treatment-resistant depression</li> </ul>                           | 1               | 2             |
| 4     | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1, d 2 | <p>Anxiety Disorders and Anxiolytic Therapy</p> <ul style="list-style-type: none"> <li>Pharmacological management of anxiety disorders, including generalized anxiety disorder, panic disorder, and social anxiety disorder</li> <li>Benzodiazepines, selective serotonin reuptake inhibitors (SSRIs), and serotonin-norepinephrine reuptake inhibitors (SNRIs) as anxiolytic agents</li> </ul> | 1               | 2             |
| 5     | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1, d 2 | <p>Schizophrenia and Antipsychotic Medications</p> <ul style="list-style-type: none"> <li>Pharmacotherapy for schizophrenia and other psychotic disorders</li> <li>Typical and atypical antipsychotic agents, their mechanisms of action, and side effects</li> <li>Monitoring for adverse effects, medication adherence, and long-term management</li> </ul>                                   | 1               | 2             |
|       |                                    |                            | <p>Attention-Deficit/Hyperactivity Disorder (ADHD) and Stimulant Therapy</p> <ul style="list-style-type: none"> <li>Pharmacological treatment of ADHD in children and adults</li> <li>Stimulant medications, such as methylphenidate and amphetamines, for ADHD management</li> </ul>   | 1               | 2             |



|  |                                    |                            |   |           |           |
|--|------------------------------------|----------------------------|---|-----------|-----------|
|  |                                    |                            | Substance Use Disorders and Medication-Assisted Treatment<br>- Medications for the treatment of substance use disorders, including alcohol, opioids, and nicotine dependence<br>- Naltrexone, buprenorphine, methadone, and nicotine replacement therapies<br>-   | 1         | 2         |
|  |                                    |                            | Alzheimer's Disease and Dementia<br>- Pharmacotherapy for Alzheimer's disease and other dementias<br>- Cholinesterase inhibitors (donepezil, rivastigmine, galantamine) and NMDA receptor antagonist (memantine)<br>- Challenges in the management of cognitive symptoms and disease progression<br>-       | 1         | 2         |
| 6  | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1, d 2 | Epilepsy and Antiepileptic Drugs<br>- Pharmacological treatment of epilepsy and seizure disorders<br>- Antiepileptic drugs (AEDs) and their mechanisms of action<br>- Individualized therapy, monitoring drug levels, and managing drug interactions<br>-   | 1         | 2         |
| 7  | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1, d 2 | Parkinson's Disease and Antiparkinsonian Medications<br>- Pharmacotherapy for Parkinson's disease and parkinsonian symptoms<br>- Dopaminergic agents, such as levodopa, dopamine agonists, and MAO-B inhibitors<br>- Monitoring for motor fluctuations, dyskinesias, and optimizing treatment response<br>- | 1         | 2         |
| 8  | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1      | Multiple Sclerosis (MS) and Disease-Modifying Therapies<br>- Disease-modifying therapies (DMTs) for multiple sclerosis<br>- Interferons, glatiramer acetate, monoclonal antibodies, and other immunomodulatory agents<br>- Safety monitoring, adherence, and managing adverse effects in MS treatment<br>-  | 1         | 2         |
| 9  | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1, d 2 | - Sleep Disorders and Hypnotic Medications<br>- Headache Disorders and Migraine Management  | 1         | 2         |
| 10   | Neurologic & Psychiatric Disorders | a 1, a 2, b1, c1, d 1, d 2 | - Emerging Trends in Psychiatry/Neurology Pharmacotherapy   | 1         | 2         |
| 11   | Final Exam                         | a 1, a 2, b1, c1, d 1      |   | 1         | 32        |
| <b>Number of Weeks /and Units Per Semester</b> |                                    |                            |   | <b>16</b> | <b>32</b> |

| B. Case Studies and Practical Aspect:   |                    |          |               |                           |
|---|--------------------|----------|---------------|---------------------------|
| No.                                     | Tasks/ Experiments | Week Due | Contact Hours | Learning Outcomes (CILOs) |
| 1                                       | NA                 |          |               |                           |
| 2                                       |                    |          |               |                           |
| 3                                       | -                  |          |               |                           |
| 4                                       | -                  |          |               |                           |
| 5                                       | -                  |          |               |                           |
| 6                                       | -                  |          |               |                           |
| 7                                       | -                  |          |               |                           |
| 8                                       | -                  |          |               |                           |
| 9                                       |                    |          |               |                           |
| 10                                      | -                  |          |               |                           |
| 11                                      | -                  |          |               |                           |
| 12                                      | -                  |          |               |                           |
| 13                                      | -                  |          |               |                           |
| 14                                      | -                  |          |               |                           |
| 15                                      | -                  |          |               |                           |
| 16                                      |                    |          |               |                           |
| Number of Weeks /and Units Per Semester |                    |          |               |                           |

| C. Tutorial Aspect: (ان وجدت) |          |                 |               |                           |
|-------------------------------|----------|-----------------|---------------|---------------------------|
| No.                           | Tutorial | Number of Weeks | Contact Hours | Learning Outcomes (CILOs) |
|                               |          |                 |               |                           |





| No.  | Tutorial | Number of Weeks | Contact Hours | Learning Outcomes (CILOs) |
|--|----------|-----------------|---------------|---------------------------|
| 1  |          |                 |               |                           |
| 2  |          |                 |               |                           |
| 3  |          |                 |               |                           |
| 4  |          |                 |               |                           |
| 5  |          |                 |               |                           |
| 6  |          |                 |               |                           |
| 7  |          |                 |               |                           |
| 8  |          |                 |               |                           |
| 9  |          |                 |               |                           |
| 10   |          |                 |               |                           |
| <b>Number of Weeks /and Units Per Semester</b> |          |                 |               |                           |

### V. Teaching Strategies of the Course:

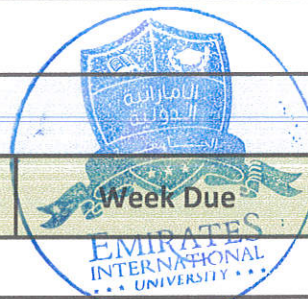
Lecture  
Discussion  
Presentation  
Office hours  
Seminar  
Assignment  
Self-Learning

### VI. Assessment Methods of the Course:

Assignments  
Quiz  
Exam

### VII. Assignments:

| No | Assignments | Aligned CILOs(symbols) | Week Due | Mark |
|----|-------------|------------------------|----------|------|
|    |             |                        |          |      |





|              |  |                           |     |     |
|--------------|--|---------------------------|-----|-----|
| 1            | <b>Assignment 1:</b> Develop Pharmaceutical Care plan for patient with PD                | a 1, a 2, b1,c1, d 1, d 2 | 3th | 2.5 |
| 2            | <b>Assignment 2:</b> Develop Pharmaceutical Care plan for patient with Anxiety Disorders | a 1, a 2, b1,c1, d 1, d 2 | 6th | 2.5 |
| <b>Total</b> |  |                           |     | 5   |

### VIII. Schedule of Assessment Tasks for Students During the Semester:

| No.          | Assessment Method | Week Due        | Mark | Proportion of Final Assessment | Aligned Course Learning Outcomes |
|--------------|-------------------|-----------------|------|--------------------------------|----------------------------------|
| 1            | Assignments       | 3th, 6th,       | 5    | 10%                            | a 1, a 2, b1,c1, d 1, d 2        |
| 2            | Quiz              | 6 <sup>th</sup> | 5    | 5%                             | a 1, a 2, b1,c1, d 2             |
| 3            | Midterm Exam      | Week 8          | 20   | 20%                            | a 1, a 2, b1,c1, d 2             |
| 4            | Final Exam        | Week 16         | 70   | 70 %                           | a 1, a 2, b1,c1, d 2             |
| <b>Total</b> |                   |                 | 100  | 100%                           |                                  |

### IX. Learning Resources:

- *Written in the following order: ( Author - Year of publication – Title – Edition – Place of publication – Publisher).*

#### 1- Required Textbook(s) ( maximum two ).

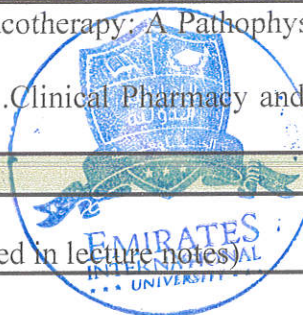
- 1- Chisholm-Burns et al, 2015, Pharmacotherapy principles & practice. ed. , 4<sup>th</sup> edition
- 2- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

#### 2- Essential References.

- 1 -DiPiro et al, 10th edition, 2017. Pharmacotherapy: A Pathophysiological Approach, ed. edition.
2. Walker & Whittlesea, 5th edition, 2011. Clinical Pharmacy and Therapeutics, ed. Wall Whittlesea, 6th edition, 2018.

#### 3- Electronic Materials and Web Sites etc.

- 1 -www.accesspharmacy.com
- 2 -Disease management guidelines (specified in lecture notes)



## X. Course Policies: (Based on the Uniform Students' By law (2007))

|   |  |
|---|--|
| 1 | <b>Class Attendance:</b><br>Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.  |
| 2 | <b>Tardiness:</b><br>A student will be considered late if he/she is not in class after 10 minutes of the start time of class.  |
| 3 | <b>Exam Attendance/Punctuality:</b><br>No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.  |
| 4 | <b>Assignments &amp; Projects:</b><br>Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.   |
| 5 | <b>Cheating:</b><br>Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.  |
| 6 | <b>Forgery and Impersonation:</b><br>Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply. |
| 7 | <b>Other policies:</b><br>The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.                                     |





## Faculty of Medicine and Health Science

Department of Clinical Pharmacy

Bachelor of Pharm D

Course Plan (Syllabus) Pharmacotherapy Module

III:Psychiatry/Neurology

**Course No.** (PP 503)



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

| II. Course Identification and General Information: |  |  |              |          |            |
|--|--|--|--------------|----------|------------|
| 1  | Course Title:  | Pharmacotherapy Module<br>III:Psychiatry/Neurology |              |          |            |
| 2  | Course Code & Number:                                  | PP 503   |              |          |            |
| 3  | Credit Hours:  | Credit Hours                                       | Theory Hours |          | Lab. Hours |
|  |  |  | Lecture      | Exercise |            |
|  |  | 2  | 2            | --       | --         |
| 4  | Study Level/ Semester at which this Course is offered: | 5 Level / 1Semester                                |              |          |            |
| 5  | Pre –Requisite (if any):                               | Pharmacology III                                   |              |          |            |
| 6  | Co –Requisite (if any):                                | None   |              |          |            |
| 7  | Program (s) in which the Course is Offered:            | Bachelor of Pharm D                                |              |          |            |
| 8  | Language of Teaching the Course:                       | English  |              |          |            |
| 9  | Study System:  | Semester based System                              |              |          |            |
| 10   | Mode of Delivery:                                      | Full Time  |              |          |            |
| 11   | Location of Teaching the Course:                       | Faculty of Medical sciences                        |              |          |            |
| 12   | Prepared by:   | Dr. Mogeab Al-nahari                               |              |          |            |
| 13   | Date of Approval:                                      |  |              |          |            |



### III. Course Description:

The course content is complementary to pathophysiology and pharmacology courses and is supportive for pharmaceutical care and cases study courses. The course content aims to understand the knowledge of the pathophysiology, clinical manifestations, and therapeutics (clinical uses, pharmacokinetics, clinically significant side effects, drug interactions and contraindications to medications) of selected Neurologic Disorders/ Psychiatric Disorders .

### IV. Course Intended Learning Outcomes (CILOs) :

Upon successful completion of the Course, student will be able to:

|    |  |
|----|--|
|    | <b>A. Knowledge and Understanding:</b>   |
| a1 | Define the clinical manifestations, pathophysiology, diagnosis, and complication of Neurologic Disorders/ Psychiatric Disorders/ .       |
| a2 | List the target goals of treatment for Neurologic Disorders/ Psychiatric Disorders/ .  |
|    | <b>B. Intellectual Skills:</b>   |
| b1 | Construct rational drugs therapy and monitoring plan for Neurologic Disorders/ Psychiatric Disorders/ .                                  |
|    | <b>C. Professional and Practical Skills:</b>   |
| c1 | Use properly drug regimens and monitoring parameters to achieve targeted treatment goals of Neurologic Disorders/ Psychiatric Disorders/ |
|    | <b>D. Transferable Skills:</b>   |
| d1 | Search efficiently for required medical information from professional medical references and sites                                       |
| d2 | Communicate effectively with healthcare professionals and patients   |

### V. Course Contents:

#### A. Theoretical Aspect:

#### IV. Course Content:

#### A – Theoretical Aspect:



| Order | Units/Topics List                  | Sub Topics List  | Number of Weeks | Contact Hours |
|-------|------------------------------------|--|-----------------|---------------|
| 1     | Neurologic & Psychiatric Disorders | Introduction to Psychiatric and Neurological Disorders <ul style="list-style-type: none"> <li>• Overview of common psychiatric and neurological disorders</li> <li>• Role of pharmacotherapy in the management of psychiatric and neurological conditions</li> <li>• Ethical considerations and challenges in psychiatric and neurological pharmacotherapy</li> </ul>                        | 1               | 2             |
| 2     | Neurologic & Psychiatric Disorders | Neurotransmitters and Psychotropic Medications <ul style="list-style-type: none"> <li>- Introduction to neurotransmitters and their role in psychiatric and neurological disorders</li> <li>- Pharmacological agents targeting neurotransmitter systems</li> <li>- Mechanisms of action, therapeutic uses, and side effects of psychotropic medications</li> </ul>                           | 1               | 2             |
| 3     | Neurologic & Psychiatric Disorders | Mood Disorders and Antidepressant Therapy <ul style="list-style-type: none"> <li>• Pharmacotherapy for major depressive disorder and bipolar disorder</li> <li>• Antidepressant classes, including SSRIs, SNRIs, tricyclic antidepressants, and MAOIs</li> <li>• Monitoring parameters, therapeutic response, and managing treatment-resistant depression</li> </ul>                         | 1               | 2             |
| 4     | Neurologic & Psychiatric Disorders | Anxiety Disorders and Anxiolytic Therapy <ul style="list-style-type: none"> <li>- Pharmacological management of anxiety disorders, including generalized anxiety disorder, panic disorder, and social anxiety disorder</li> <li>- Benzodiazepines, selective serotonin reuptake inhibitors (SSRIs), and serotonin-norepinephrine reuptake inhibitors (SNRIs) as anxiolytic agents</li> </ul> | 1               | 2             |
| 5     | Neurologic & Psychiatric Disorders | Schizophrenia and Antipsychotic Medications <ul style="list-style-type: none"> <li>- Pharmacotherapy for schizophrenia and other psychotic disorders</li> <li>- Typical and atypical antipsychotic agents, their mechanisms of action, and side effects</li> <li>- Monitoring for adverse effects, medication adherence, and long-term management</li> </ul>                                 | 1               | 2             |
|       |                                    | Attention-Deficit/Hyperactivity Disorder (ADHD) and Stimulant Therapy <ul style="list-style-type: none"> <li>- Pharmacological treatment of ADHD in children and adults</li> <li>- Stimulant medications, such as methylphenidate and amphetamines, for ADHD management</li> </ul>   | 1               | 2             |
|       |                                    | Substance Use Disorders and Medication-Assisted Treatment <ul style="list-style-type: none"> <li>- Medications for the treatment of substance use disorders, including alcohol, opioids, and nicotine dependence</li> <li>- Naltrexone, buprenorphine, methadone, and</li> </ul>   | 1               | 2             |





|  |   |   |           |           |
|--|---|---|-----------|-----------|
|  |   | nicotine replacement therapies<br>-   |           |           |
|  |   | Alzheimer's Disease and Dementia<br>- Pharmacotherapy for Alzheimer's disease and other dementias<br>- Cholinesterase inhibitors (donepezil, rivastigmine, galantamine) and NMDA receptor antagonist (memantine)<br>- Challenges in the management of cognitive symptoms and disease progression<br>-       | 1         | 2         |
| 6  | <b>Neurologic &amp; Psychiatric Disorders</b> | Epilepsy and Antiepileptic Drugs<br>- Pharmacological treatment of epilepsy and seizure disorders<br>- Antiepileptic drugs (AEDs) and their mechanisms of action<br>- Individualized therapy, monitoring drug levels, and managing drug interactions<br>-   | 1         | 2         |
| 7  | <b>Neurologic &amp; Psychiatric Disorders</b> | Parkinson's Disease and Antiparkinsonian Medications<br>- Pharmacotherapy for Parkinson's disease and parkinsonian symptoms<br>- Dopaminergic agents, such as levodopa, dopamine agonists, and MAO-B inhibitors<br>- Monitoring for motor fluctuations, dyskinesias, and optimizing treatment response<br>- | 1         | 2         |
| 8  | <b>Neurologic &amp; Psychiatric Disorders</b> | Multiple Sclerosis (MS) and Disease-Modifying Therapies<br>- Disease-modifying therapies (DMTs) for multiple sclerosis<br>- Interferons, glatiramer acetate, monoclonal antibodies, and other immunomodulatory agents<br>- Safety monitoring, adherence, and managing adverse effects in MS treatment<br>-  | 1         | 2         |
| 9  | <b>Neurologic &amp; Psychiatric Disorders</b> | - Sleep Disorders and Hypnotic Medications<br>- Headache Disorders and Migraine Management  | 1         | 2         |
| 10   | <b>Neurologic &amp; Psychiatric Disorders</b> | - Emerging Trends in Psychiatry/Neurology Pharmacotherapy   | 1         | 2         |
| 11   | <b>Final Exam</b>                             |   | 1         | 32        |
| <b>Number of Weeks /and Units Per Semester</b> |   |   | <b>16</b> | <b>32</b> |

**B. Case Studies and Practical Aspect:**

| No. | Tasks/ Experiments | Week Due | Contact Hours |
|-----|--------------------|----------|---------------|
|-----|--------------------|----------|---------------|

| No.  | Tasks/ Experiments | Week Due | Contact Hours |
|--|--------------------|----------|---------------|
| 1  | NA                 |          |               |
| 2  |                    |          |               |
| 3  |                    |          |               |
| 4  |                    |          |               |
| 5  |                    |          |               |
| 6  |                    |          |               |
| 7  |                    |          |               |
| 8  |                    |          |               |
| 9  |                    |          |               |
| 10   |                    |          |               |
| 11   |                    |          |               |
| 12   |                    |          |               |
| 13   |                    |          |               |
| 14   |                    |          |               |
| 15   |                    |          |               |
| 16   |                    |          |               |
| <b>Number of Weeks /and Units Per Semester</b> |                    |          |               |

| No. | Tasks/ Experiments | Week Due | Contact Hours |
|-----|--------------------|----------|---------------|
| 1   | NA                 |          |               |
| 2   |                    |          |               |
| 3   | -                  |          |               |
| 4   | -                  |          |               |





## XI. Schedule of Assessment Tasks for Students During the Semester:

| No. | Assessment Method | Week Due        | Mark | Proportion of Final Assessment |  |
|-----|-------------------|-----------------|------|--------------------------------|--|
| 1   | Assignments       | 3th, 6th,       | 5    | 5%                             |  |
| 2   | Quiz              | 6 <sup>th</sup> | 5    | 5%                             |  |
| 3   | Midterm Exam      | Week 8          | 20   | 20%                            |  |
| 4   | Final Exam        | Week 16         | 70   | 70 %                           |  |
|     |                   |                 |      |                                |  |

## X. Learning Resources:

خطأ! لم يتم العثور على مصدر المرجع.

## X. Learning Resources:

- Written in the following order: ( Author - Year of publication – Title – Edition – Place of publication – Publisher).

### 1- Required Textbook(s) ( maximum two ).

- 3- Chisholm-Burns et al, 2015, Pharmacotherapy principles & practice. ed. , 4<sup>th</sup> edition
- 4- Katzung, 2018. Basic & Clinical Pharmacology, ed., 14th edition.

### 2- Essential References.

- 1 -DiPiro et al, 10th edition, 2017. Pharmacotherapy: A Pathophysiological Approach, ed. edition.
2. Walker & Whittlesea, 5th edition, 2011. Clinical Pharmacy and Therapeutics, ed. Wall Whittlesea, 6th edition, 2018.

### 3- Electronic Materials and Web Sites etc.

- 1 -www.accesspharmacy.com
- 2 -Disease management guidelines (specified in lecture notes)

## XI. Course Policies: (Based on the Uniform Students' Bylaw (2007))

|   |   |
|---|---|
|   | <b>Class Attendance:</b>  |
| 1 | Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes. |
|   | <b>Tardiness:</b>   |
| 2 | A student will be considered late if he/she is not in class after 10 minutes of the start time of class.  |
|   | <b>Exam Attendance/Punctuality:</b>   |
| 3 |   |



|   |  |
|---|--|
|   | No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.   |
| 4 | <b>Assignments &amp; Projects:</b><br>Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.   |
| 5 | <b>Cheating:</b><br>Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.  |
| 6 | <b>Forgery and Impersonation:</b><br>Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply. |
| 7 | <b>Other policies:</b><br>The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.                                     |

