**Course code: CP301**

**Course title: Psychopharmacology**

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| 1. **Course Learning Outcomes: (CLO’s)**
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| CLO-1 |  **Define** basic principles of pharmacokinetics, pharmacodynamics, neurotransmission and the basic features of the drug groups. (C1) |
| CLO-2 | **Explain** the mechanism of action and side effects of psychotropic drugs. (C2) |
| CLO-3 |  **Demonstrate** the ethical practices as a drug counselling. (A3) |
| CLO-4 |  **Develop** a need-based plan in order to psycho- educate the clients with respect to the usage and abuse of the psychotropic medications. (C3) |

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|  | CLO 1 | CLO 2 | CLO 3 | CLO 4 |
| **PLO-1****Cognitive** | **Psychology Knowledge:**  Graduates will be able to comprehend the core concepts of Clinical Psychology—an ability to describe the manifestation of psychological issues |  |  |  |  |
| **PLO-2****Cognitive**  | **Conceptualization:** Graduates can formulate and conceptualize psychological problems according to the Bio-Psych-Social and Spiritual Model with respect to cultural practices |  |  |  |  |
| **PLO-3****Psychomotor** | **Basic Assessment Skill Development**: An ability to demonstrate and interpret various assessment modalities. |  |  |  |  |
| **PLO-4****Psychomotor** | **Therapeutic Techniques and Implementation**: Graduates will be able to utilize the therapeutic skills and construct the intervention plan |  |  |  |  |
| **PLO-5****Affective**  | **Communication:**  Graduates will be able to communicate and demonstrate practical verbal and written skills  |  |  |  |  |
| **PLO-6****Psychomotor** | **Case studies**: An ability to conceptualize individual clinical cases with diverse ethnic, religious, and cultural backgrounds along with integrated assessment and intervention skills  |  |  |  |  |
| **PLO-7****Affective** | **Ethical considerations**: Graduates will ensure professional ethical guidelines and principles in clinical and community settings. |  |  |  |  |
| **PLO-8****Psychomotor** | **Research:** An ability to identify the need for significant indicators of mental health in a collectivistic culture to execute scientific research |  |  |  |  |
| **PLO-9****Psychomotor** | **Community Work**: Graduates will able to engage with different organizations to provide community services including recognition and bridging different resources to fulfill the psychological needs of communities such as marginalized population  |  |  |  |  |
| **PLO-10****Psychomotor** | **Mental Health Awareness:** Graduates will be able to take initiative and design Programs for prevention and promotion of mental health wellness and quality of life in general population. |  |  |  |  |
| **PLO-11****Cognitive**  | **Lifelong Learning**: Able to develop significant professional goals for life and recognize the importance of psychological skills in their personal and professional lives.  |  |  |  |  |

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| 1. **Assurance of Learning and Assessment Items:**

*Specify Assessment Items that will assure student learning through application and achieve objectives of specific PLOs / CLOs* |
| **Assessment Item** | **Application/ Outcomes****PLO / CLO** |
| Assignment 1 | CLO 1/ PLO1  |
| Assignment 2 | CLO 2/PLO2 |
| Quiz 1 | CLO 1/PLO1 |
| Quiz 2 | CLO 2 /PLO2 |
| Midterm  | CLO1, 2,3, |
| Presentation  | CLO 2 |
| Final Exam | CLO 2.3.4  |

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| 1. **Weekly Sessions Plan:**
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|  Week | Course Contents  | CLO | Blooms Taxonomy levels  | Reference Chapter(s) |
| 1 | **Introduction to Psychopharmacology*** Brain controls behavior
* Role of Medicines in Maintaining the balance

**What is Psychopharmacology?*** Brief History
* Interaction of psychology and biology
* Cultural context of psychopharmacology
 | 1 | C1 | Handbook of Clinical PsychopharmacologyChapter 1 and 2(Peterson, O’Neil & Telaga, 2003) |
| 2 | **Neurobiology: An Overview** * Anatomy of Human Brain
* Structure and Function of Nerve cell
* Inter-cellular Electrical and Chemical Conduction
* Activity across the synapse
 | 1 | C1 | Handbook of Clinical Psychopharmacology for psychologists(Muse & Moore, 2012)Chapter 3 |
| 3 | **Neurobiology: An Overview*** Brain Structures
* Neuroanatomy, psychological functioning and psychopathology
* Peripheral nervous system
* Neurological paths to psychopathology
 | 2 | C2 | Handbook of Clinical PsychopharmacologyChapter 3(Peterson, O’Neil & Telaga, 2003) |
|  4 | **Practice of Clinical Psychopharmacology*** Pharmacokinetics
* Absorption, Distribution, Metabolism, Excretion
* Psychodynamics
* Drug potency, efficacy, interaction and half life
* Intoxication, tolerance, withdrawal
* Routes of administration
* Dosage Adjustment
* Indications and Contraindications
 | 1,2 | A3 | Handbook of Clinical PsychopharmacologyChapter 4 and Appendix A(Peterson, O’Neil & Telaga, 2003) |
| 5 | **Antidepressants** * Psychological Manifestation of Depressive Symptoms
* Overview and History
* Symptoms of Depression and Brain Pathways
* Revolution of SSRI’s
* Mechanism of Action
* Monoamine Hypothesis
* Anti-depressants Class
 | 2,3,4 | C3 | Sharma (2017) Antidepressants: mechanism of action, toxicity and possibleamoleration.Psychopharmacology for psychologistsChapter 9(Muse & Moore, 2012) |
| 6 | **Anti-Depressants** * Classes and Important Drugs within each class
* Side Effects and Adverse Effects
* Monitoring, Switching, Tapering and Discontinuation of drug
 | 2,3,4 | C2 | Handbook of Clinical PsychopharmacologyChapter 7 and 16(Peterson, O’Neil & Telaga, 2003) |
|  7 | **Anti-psychotic Medications*** Psychosis and Schizophrenic symptoms
* Overview and History
* The Dopamine hypothesis
* Dopaminergic pathways
* Classes of Antipsychotics
* Indications and Contraindications
* Extrapyramidal side effects
* First generation antipsychotics
 | 2,3,4 | C1 | Antipsychotic drugs(Kaur, Mauraya & Kaur, 2020)Handbook of Clinical PsychopharmacologyChapter 19(Peterson, O’Neil & Telaga, 2003) |
| 8 | **Mid Term Exam**  |  |  |  |
|  9 | **Anti-psychotic Medications** * First generation antipsychotics
* Mode of action
* Major drugs and their side effects
* Second generation antipsychotics
* Mechanism of action
* Major drugs and side effects
* Monitoring, Switching, Tapering and Discontinuation of drug
 | 1 | C1 | Psychopharmacology for psychologistsChapter 9(Muse & Moore, 2012) |
| 10 | **Anxiolytics** * Psychological manifestation of Anxiety symptoms
* Role of GABA
* Mechanism of Action
* Types of Anxiolytics and Hypnotics
 | 2 | C2 | Handbook of Clinical PsychopharmacologyChapter 13(Peterson, O’Neil & Telaga, 2003)Clinical pharmacology of anxiolytics (Bourin, 2018) |
| 11 | **Anxiolytics** * Benzodiazepines
* Pharmacokinetics
* Dependence and Withdrawal
 | 2,3  | C1 | Psychopharmacology for psychologistsChapter 9(Muse & Moore, 2012) |
| 12 | **Mood Stabilizers** * Affective Disorders
* How do they work?
* Lithium
 | 3 | C3 | Mood stabilizers: side effects, contraindications, and interactions.(Himmerich, 2020). |
| 13 | **Mood Stabilizers** * Anti-convulsant drugs
* Side effects and Contraindications
* Reg Flags: When to reevaluate
 | 4 | C3 | Handbook of Clinical PsychopharmacologyChapter 17(Peterson, O’Neil & Telaga, 2003) |
| 14 | **Treating Children and Adolescents** * Issues while prescribing drugs
* Treating ADHD
* Psychopharmacology of ADHD
* Differentiating ADHD from Bipolar
* Treating Autism
* Psychopharmacology of Autism
 | CLO3 | C3 | Handbook of Clinical PsychopharmacologyChapter 23(Peterson, O’Neil & Telaga, 2003) |
| 15 | Revision  |  |  |  |