**Course code: CP301**

**Course title: Psychopharmacology**

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| 1. **Course Learning Outcomes: (CLO’s)** | |
| 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:** | | | | |
| 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 Psychopharmacology  Chapter 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 Psychopharmacology  Chapter 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 Psychopharmacology  Chapter 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 possible  amoleration.  Psychopharmacology for psychologists  Chapter 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 Psychopharmacology  Chapter 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 Psychopharmacology  Chapter 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 psychologists  Chapter 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 Psychopharmacology  Chapter 13  (Peterson, O’Neil & Telaga, 2003)  Clinical pharmacology of anxiolytics (Bourin, 2018) |
| 11 | **Anxiolytics**   * Benzodiazepines * Pharmacokinetics * Dependence and Withdrawal | 2,3 | C1 | Psychopharmacology for psychologists  Chapter 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 Psychopharmacology  Chapter 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 Psychopharmacology  Chapter 23  (Peterson, O’Neil & Telaga, 2003) |
| 15 | Revision |  |  |  |