PACIFIC MEDICAL UNIVERSITY, UDAIPUR

Ph.D. Entrance Syllabus – Psychiatry

Basic Sciences Applied to Psychiatry

Foundational understanding of biological and psychological bases of mental illness:

Neuroanatomy & Neurophysiology

- Structure and function of CNS
- Neurotransmitters and neural pathways
- Limbic system, basal ganglia, frontal lobes
- Neuroplasticity

Genetics & Molecular Psychiatry

- Genetic basis of psychiatric disorders
- Gene–environment interactions
- Epigenetics in psychiatry
- Endophenotypes

Neurochemistry

- Dopamine, serotonin, norepinephrine, GABA, glutamate
- Neurohormones and stress response (HPA axis)

Psychology & Behavioral Sciences

- Learning theories
- Motivation and emotion
- Memory, cognition, intelligence
- Personality theories

Psychiatric Disorders (Adult Psychiatry)

Psychotic Disorders

- Schizophrenia and related disorders
- Delusional disorder
- Acute and transient psychotic disorders

Mood Disorders

- Major depressive disorder

- Bipolar affective disorder
- Persistent mood disorders
- Suicide and self-harm

Anxiety & Stress-Related Disorders

- Generalized anxiety disorder
- Panic disorder
- Phobias
- Obsessive-compulsive disorder
- PTSD

Somatic Symptom & Dissociative Disorders

- Somatoform disorders
- Conversion disorders
- Dissociative disorders

Personality Disorders

- Cluster A, B, and C personality disorders

Substance Use Disorders & Addictions

- Alcohol use disorder
- Opioid, cannabis, stimulant use disorders
- Tobacco dependence
- Behavioral addictions (gaming, internet)
- Intoxication, withdrawal, and relapse prevention
- National de-addiction programs

Child & Adolescent Psychiatry

- Neurodevelopmental disorders
    - Autism spectrum disorder
    - ADHD
    - Intellectual disability
- Behavioral and emotional disorders
- Learning disorders

- Adolescent mental health
- Childhood psychoses and mood disorders

Organic Psychiatry & Neuropsychiatry

- Delirium
- Dementia (Alzheimer's, vascular, others)
- Psychiatric disorders due to medical conditions
- Epilepsy and psychiatric comorbidity
- Head injury and psychiatric sequelae

Psychiatric Emergencies

- Suicide risk assessment and management
- Acute agitation and violence
- Catatonia
- Neuroleptic malignant syndrome
- Serotonin syndrome

Psychopharmacology

- Antipsychotics (typical & atypical)
- Antidepressants
- Mood stabilizers
- Anxiolytics and hypnotics
- Drugs for substance use disorders
- Adverse effects and drug interactions
- Special populations (pregnancy, elderly)

Psychotherapies

- Psychoanalytic therapies
- Cognitive behavioral therapy (CBT)
- Behavior therapy
- Supportive psychotherapy

- Family and group therapy
- Brief therapies

Social & Community Psychiatry

- Community mental health models
- National Mental Health Programme (NMHP)
- Mental health legislation (Mental Healthcare Act, 2017)
- Rehabilitation and recovery models
- Stigma and ethics in psychiatry

Forensic Psychiatry & Ethics

- Criminal responsibility
- Fitness to stand trial
- Civil competency
- Ethical principles in psychiatry
- Informed consent and confidentiality

Classification & Assessment

- ICD-10 / ICD-11
- DSM-5
- Psychiatric history taking
- Mental status examination (MSE)
- Psychological testing
- Rating scales

Recent Advances in Psychiatry

- Neuroimaging (fMRI, PET)
- Neuromodulation (ECT, rTMS, DBS)
- Digital psychiatry
- Precision psychiatry
- Psychopharmacogenomics