Masters in Science of Pharmacology

Program Learning Outcomes

Upon satisfactory completion of the MSP, graduates will have the following learning outcomes of the program.

A. Knowledge and Understanding

1. Explain effectively the fundamental principles of pharmacology
2. Demonstrate subject mastery in molecular, cellular, and integrative aspects of systemic pharmacology
3. Discuss effectively major applications of fundamental knowledge of pharmacology in the pharmaceutical industries and clinical therapy
4. Discuss current approaches to global drug discovery and related legislative regulations
5. Appraise experimental laboratory techniques and discuss the limitations of techniques and disease models used in drug research

B. Intellectual Skills

1. Apply fundamental scientific knowledge of pharmacology and problem solving strategies to develop innovative solutions to specific problems in pharmacology
2. Critically review, analyze, and interpret the literature relating to pharmacology research
3. Critically appraise sources of literature for validity and usefulness, identifying gaps in pharmacology knowledge
4. Formulate focused questions and generate hypotheses based on current pharmacology knowledge

C. Professional and Practical Skills

1. Apply basic science knowledge and skills to experimental study design, management and data analysis and interpretation
2. Use statistically appropriate reasoning and methods in research design, data analysis and problem solving in pharmacology research
3. Discuss the principles of scientific and professional ethics and standards of ethical conduct of research
4. Demonstrate professionalism and high ethical standards in pharmacology research

D. Transferable skills

1. Demonstrate self-direction and originality in implementing a research project
2. Function as an effective team leader and member on pharmacology projects
3. Develop independent and autonomy in learning, managing requirements and undertaking research tasks with minimum guidance
4. Communicate science effectively with a variety of audiences using a range of techniques, defend research findings orally and in writing
5. Demonstrate self-evaluation skills, reflecting on own and others' functioning