PHARMACOVIGILANCE CERTIFICATE

Pharmacovigilance is the science of collecting, detecting, assessing, and monitoring data of drugs in order to minimize or prevent adverse effects. Pharmacovigilance, modernization and evolution of safety pharmacology, employs sophisticated state of the art approaches in the collection and analyses of data for therapeutics under development and for post-marketing surveillance of pharmaceutical products. Pharmacovigilance offers the promise of significant beneficial improvements in human health by providing safer, more effective and individually tailored therapeutics.

Loyola's Department of Molecular Pharmacology & Neuroscience offers a 12-credit certificate program in Pharmacovigilance which can be completed in 1-year (full-time) or 2-years (part-time). This program is especially well suited for individuals who are planning careers in the pharmaceutical industry, public health sciences, or biomedical research. The certificate program is also suited for physicians, nurses, and scientists in epidemiology or therapeutic-related fields. The program covers all aspects of Pharmacovigilance, related drug development and regulatory topics, and the ethics associate with these endeavors. Courses involve executives and expert scientists from the pharmaceutical industry who are world leaders in these areas.

All courses consist of Asynchronous lectures and synchronous course meetings (early evening) and are flexible to allow students to take the courses from home and around daytime obligations.

Curriculum

Code	Title	Hours
PHAR 407	Fundamentals of Drug Discovery and Development	3
PHAR 409	Principles of Pharmacology	3
or PHAR 408	Molecular Basis of Disease and Therapeutics	
PHAR 415	Current Topics in Pharmacology and Epidemiology of Disease	2
PHAR 420	Pharmacovigilance: A Practical Approach	4
Total Hours		**12**

Graduate & Professional Standards and Regulations

Students in graduate and professional programs can find their Academic Policies in Graduate and Professional Academic Standards and Regulations (https://catalog.luc.edu/graduate-professional-academic-standards-regulations/) under their school. Any additional University Policies supercede school policies.

Learning Outcomes

Upon completion of this program, students will be able to:

- Identify and evaluate Drug Development pathways including pre-clinical and clinical trials and the ethical, scientific, and regulatory issues around them.
- Identify and evaluate signal identification, assessment, management, and causality assessment.
- Evaluate benefit-risk, risk minimization, product safety monitoring, and vaccine safety monitoring.
- Evaluate and assess real world data/evidence.
- Interpret evidence obtained in Pharmacovigilance, including behavioral science, patient perspectives, and risk communication.
- Identify and explain the ways in which Pharmacovigilance can produce evidence and evaluations of data, and how these can be used to benefit human health.