Pharmacometrics is an emerging science defined as the science that quantifies drug, disease, and trial information to aid efficient drug development and/or regulatory decisions.

Knowledge & Skills Gained:
- Pharmacokinetics and pharmacodynamics
- Clinical pharmacology
- Cutting-edge Bayesian dosing concepts

Required Education:
- Bachelor's Degree (Chemistry or Life Sciences)
- Health Professional Student/Graduate

Drug discovery and development (DDD) is the process by which new drugs are discovered, developed, and approved for clinical use. It also encompasses the knowledge, skills, and techniques required for pursuing the process.

Knowledge & Skills Gained:
- Understanding of critical aspects of all stages of the DDD process
- Project management
- Scientific communications
- Track selection of medicinal chemistry, formulation science, or pharmacology & toxicology

Required Education:
- Bachelor's Degree (Chemistry or Life Sciences)
- Health Professional Student/Graduate

Outcomes research is used to develop patient-centered best practices, practice guidelines, and cost-effective therapeutic and behavioral interventions, improve healthcare system performance, and inform policy.

Knowledge & Skills Gained:
- Evaluate clinical, observational, economic & policy research
- Use real-world evidence to inform decision-making
- Compare effectiveness of treatments/interventions

Required Education:
- Certificate
- Health Professional Student/Graduate

Academic Programs
- Certificate
  - 15 hrs
  - 100% online

Job Opportunities
- Clinical Outcomes Manager
- Healthcare Administrators
- Pharmacoeconomist
- Practitioners
- Policymakers
- Research Analyst

Types of Employers
- Academia
- Contract research organizations
- Health insurance
- Healthcare systems
- Hospitals
- Government organizations
- Pharmaceutical industry
- Regulatory agencies
- Non-profit policy research organizations
- Non-profit research institutions

Master of Science
- 30 hrs
- Capstone project
- 100% online

*Pending SACSCOC approval