

EXTERNAL COURSES - SENECA (XSEN)

XSEN*3030 Pharmacology and Applied Toxicology Winter Only (LEC: 3, LAB: 3) [0.50]

This subject is an introduction to the general aspects of pharmacology and toxicology. The lecture topics will cover the pharmacological activity of drugs on the autonomic nervous system, central nervous system and the cardiovascular system. The laboratory practicals will focus on testing, drug screening, and clinical trial methodology. Seneca College course code: #PHT-533.

Prerequisite(s): BIOC*2580, CHEM*2400

Restriction(s): Restricted to BSCH.BPCH and BSCH.BPCH:C

Department(s): Department of Chemistry

Location(s): Seneca College

XSEN*3040 Occupational Health and Chemistry Winter Only (LEC: 2, LAB: 3) [0.50]

A general coverage of general aspects of industrial hygiene. Specific topics include Canadian legislation with respect to Occupational Safety, modes of evaluation of chemical exposure, occupational toxicology, and instrumentation associated with the evaluation of the occupational environment. Seneca College course code: #OCC-433.

Prerequisite(s): CHEM*2700

Restriction(s): Restricted to BSCH.BPCH and BSCH.BPCH:C

Department(s): Department of Chemistry

Location(s): Seneca College

XSEN*3060 Pharmaceutical Analysis - Advanced Winter Only (LEC: 2, LAB: 3) [0.50]

This course reinforces the concept of how the pharmaceutical laboratory works by focusing on method validation requirements within the pharmaceutical industry. It introduces students to the regulatory (ICH, FDA) requirements and guidelines for systems validation, including TPP-acceptable methods and GMP regulations. Validation methods that are taught include Related Substances, Assay, Dissolution and Cleaning. Critical validation parameters (e.g., linearity, specificity, limit of quantitation, etc.) are focused on as well as validation protocols including establishing specifications and dealing with exceptions or out-of-specification (OOS) results. Process validation characteristics (i.e., Design Qualification (DQ), Installation Qualification (IQ), Operation Qualification (OQ), Performance Qualification (PQ) or System Suitability) are also emphasized as well as "Best Practices" such as Process Capabilities and Annual Product Review. Seneca College course code: #PHA-533.

Prerequisite(s): BIOC*2580, CHEM*2400

Restriction(s): Restricted to BSCH.BPCH and BSCH.BPCH:C

Department(s): Department of Chemistry

Location(s): Seneca College

XSEN*3070 Pharmaceutical Product Formulations Winter Only (LEC: 2, LAB: 3) [0.50]

This subject deals with the theoretical and practical aspects of pharmaceutical product formulation with an emphasis on semi-solid and liquid formulations. The students prepare and test ointments, creams, lotions, and syrups in the laboratory. Formulation as it relates to overall product stability and efficacy is also covered in both theoretical and practical terms. Seneca College course code: #PPF-633.

Prerequisite(s): CHEM*3750

Restriction(s): XSEN*4030. Restricted to BSCH.BPCH and BSCH.BPCH:C

Department(s): Department of Chemistry

Location(s): Seneca College

XSEN*3090 Biopharmaceuticals Winter Only (LEC: 3) [0.50]

This subject introduces the student to the rapidly developing field of biotechnology and biopharmaceuticals. Techniques used in the development of biopharmaceuticals will be emphasized as well as large-scale production of biologicals manufactured by genetic engineering processes. Seneca College course code: #BPH-633.

Prerequisite(s): BIOC*2580, CHEM*2700

Restriction(s): XSEN*4050. Restricted to BSCH.BPCH and BSCH.BPCH:C

Department(s): Department of Chemistry

Location(s): Seneca College

XSEN*3200 Pharmaceutical Organic Chemistry Winter Only (LEC: 1, LAB: 3) [0.50]

The determination of the structure of organic compounds using spectroscopic methods such as N.M.R. and mass spectroscopy are discussed. Correlation of structure and reactivity (i.e. drug activity) of organic compounds is also explored. A multi-step synthesis of an anesthetic (lidocaine) and mass-spectrometric analysis of an unknown organic compound (or mixture) are examples of lab-projects. Seneca College course code: #PAC-633.

Prerequisite(s): CHEM*3750

Restriction(s): XSEN*4020. Restricted to BSCH.BPCH and BSCH.BPCH:C

Department(s): Department of Chemistry

Location(s): Seneca College

XSEN*3210 Introduction to Pharmaceutical Manufacturing Winter Only (LEC: 2, LAB: 3) [0.50]

This laboratory oriented course is intended to introduce students to the world of pharmaceutical analysis and manufacturing. Certain select physical and chemical techniques used in the control of raw materials and finished dosage forms are emphasized. Topics will include the methods and equipment required to produce solid dosages. Seneca College course code: #IPM-472.

Prerequisite(s): CHEM*2700

Restriction(s): Restricted to BSCH.BPCH and BSCH.BPCH:C

Department(s): Department of Chemistry

Location(s): Seneca College