

SCI 3310 Industrial Chemical Processes (3,3,0)

Prerequisite: (1) CHEM 1510 Chemistry for Life Science or CHEM 2310 Physical Chemistry II; and (2) MATH 1511 Mathematical Methods for Physical Science I, MATH 1550 Calculus and Linear Algebra or equivalent such as AS Level Applied Mathematics

The aim of this course is to familiarize students with the application of chemical principles learned from Year I and II Chemistry major courses in various chemical industries. Material balance and unit operations are treated with illustrations chosen from modern chemical and related industries.

SCI 3450 Materials Science: Solid State, Surface Chemistry and Catalysis (3,3,0)

Prerequisite: Chemistry or Physics Major with Year III standing
This course provides a foundation of solid state and surface chemistry. It deals with the modern surface techniques and the application of surface science to various important industrial fields with particular reference to surface catalysis.

SCI 7770 Materials Science: Solid State, Surface Chemistry and Catalysis (3,3,0)

Prerequisite: Research Postgraduate student standing
This course provides a foundation of solid state and surface chemistry. It deals with the modern surface techniques and the application of surface science to various important industrial fields with particular reference to surface catalysis.

SCIB 4005 Interdisciplinary Topics in Science – Cancer Biology, Diagnostics and Therapeutics (3,3,0)

Prerequisite: (i) BIOL 2017 Cell Biology and (ii) BIOL2005 Biological Chemistry or CHEM3036 Biochemistry; or (iii) Consent of instructors

This course is part of a series of courses devoted to the study of those current and important topics in science that are interdisciplinary and multi-disciplinary in nature. In this course, the topics of focus are current advances in cancer biology, diagnostics and therapeutics. The course contents provide fundamental principles of cancer biology, which include the cellular and molecular mechanisms of carcinogenesis and tumourigenesis, applications of biomarkers and various imaging techniques in cancer diagnostics, conventional and targeted cancer therapeutics and their mechanisms of actions. Selected case studies will also be included for interactive and in-depth class discussion.

SCIB 7010 Interdisciplinary Topics in Science – Cancer Biology, Diagnostics and Therapeutics (3,3,0)

Prerequisite: (i) BIOL 2017 Cell Biology and (ii) BIOL2005 Biological Chemistry or CHEM3036 Biochemistry; or (iii) Consent of instructors

This course is part of a series of courses devoted to the study of those current and important topics in science that are interdisciplinary and multi-disciplinary in nature. In this course, the topics of focus are current advances in cancer biology, diagnostics and therapeutics. The course contents provide fundamental principles of cancer biology, which include the cellular and molecular mechanisms of carcinogenesis and tumourigenesis, applications of biomarkers and various imaging techniques in cancer diagnostics, conventional and targeted cancer therapeutics and their mechanisms of actions. Selected case studies will also be included for interactive and in-depth class discussion.

SCIE 1005 Integrated Science Laboratory (1,0,3)

This course provides Science Majors with basic laboratory and data treatment skills as well as exposing them to the inter- and

multi-disciplinary nature of modern day science. The course aim is to train students to solve real-life problems by integrating knowledge from various scientific perspectives.

SCIP 4005 Interdisciplinary Topics in Science, Organic Electronics (3,3,0)

This inter-disciplinary course describes the fundamentals of organic semiconductor materials, molecular design, synthesis, material processes, discusses the operation principle of organic semiconductor devices, enables students to become familiar with relevant terminology and be aware of the latest progresses in the emerging field of organic electronics, including functional organic semiconductors for applications in solar cells, transistors, sensors, advanced flat panel displays, and next generation solid state lighting etc.

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SCM 7010 Bioinformatics (3,3,0)

Bioinformatics is a science that uses computer technology to capture, store, represent, retrieve and analyse biological information and/or to simulate biological systems. The course aims to provide an overview of different problem areas and significant algorithms in bioinformatics. In this course, students will learn the importance and applications of bioinformatics techniques. The course will enable students to develop analytical skills to explore various types of biological data.

SCM 7020 Biostatistics (3,3,0)

This course aims to provide an understanding of the basic concepts in probability and statistical analysis, and the use of statistical approaches in the biological and medical fields. Students will learn the importance of the correct use of statistical techniques in addressing questions of medical importance. The course will enable students to develop the statistical literacy necessary to interpret the vast amounts of information. Students are required to solve a variety of problems by using statistical tables and software tools.

SLM 7010 Foundations in Sport and Leisure Management (3,3,0)

This course aims to provide a common foundation for students by presenting a coherent vocabulary for conceptualizing and discussing trends and issues in sport and leisure management. It also aims to present a comprehensive perspective on subsequent courses within the programme and their relationships to sport and leisure management as a field of study.

SLM 7020 Management Skills and Communications (3,3,0)

This course revisits the basic theories of management and communication in developing students to apply these fundamental concepts to analyse management scenarios related to the sport and leisure industry and to utilize their power of speech to increase effectiveness in interpersonal relationships and communications.