HKUST summer courses to be offered to Lingnan University students in Summer 2017

Course Description

CHEM 1002 Introduction to Chemistry of Cosmetics [3 Credit(s)]
This course concentrates on the basic scientific principles in cosmetic science. Various topics with emphasis on molecular approach related to cosmetic products' formulation and proper uses of cosmetic products will be covered. Major topics include definition of cosmetics, make-up cosmetics, skin-care cosmetics, hair-care cosmetics, vehicles of cosmetic products, surfactants, colorants, alpha hydroxyl acids & beta hydroxyl acids, anti-oxidants and sunscreens, skin-whitening agents, hydrating substances / moisturizers, antiperspirants & deodorants and botanical ingredients.

CIVL 1160 Civil Engineering and Modern Society [3 Credit(s)]
An introduction to civil engineering practice and infrastructure development, with an emphasis on Hong Kong projects. The basic principles, materials and technology used in typical civil engineering works such as foundations, buildings, bridges, slopes and water supply systems, etc. Infrastructure management and maintenance issues; social-economic aspects of large-scale civil engineering projects such as environmental protection, urban planning and development, etc. Exclusion(s): CIVL 1100, CIVL 1110

ENVR 2020 Urban Air Pollution [3 Credit(s)]
[Previous Course Code(s): ENVR 1020*]* The course is aimed at providing students with insights in how to deal with environmental problems and the way in which science interfaces with policies. It will cover major topics on the sources of air pollutions, air chemistry, oxidation of organic compounds and issues on control of air pollutant emissions and air quality management.

LIFS 1020 Biology of Human Health [3 Credit(s)]
This course introduces the basic biological principles of human health and diseases with an emphasis on the contemporary leading causes of death in Hong Kong and in the world. Topics mainly focus on common and emergent diseases, aging, and the influence of biotechnology, environment and culture on human health. *Exclusion(s):* Level 3 or above in HKDSE 1/2x Biology or in HKDSE 1x Biology, a passing grade in HKAL Biology, LIFS 1901, LIFS 1902, LIFS 4760

LIFS 1030 Environmental Science [3 Credit(s)]
This course introduces students to the general concepts of environment, natural resources, and sustainable development. The topics include pressing global, regional and local environmental changes; life-supporting systems of our planet; biodiversity and its conservation; atmosphere, water resources, and their pollutions; solid and hazardous waste management; environmental health and sustainable development. Throughout the course, students will gain a sufficient background and a better understanding of the root-causes of the upfront environmental issues. They will also become more aware of their role, as citizens, in environmental protection and sustainable development.

MECH 1902 Energy Systems in a Sustainable World [3 Credit(s)]
Various fuels used by mankind, fossil and renewable sources; power generation technologies and the controversies; energy efficient technologies and the applications in buildings and consumable products; energy efficient manufacturing technologies; low energy infrastructure and impact to modern life style; myths behind sustainable energy systems and the debates; energy entrepreneurship, case studies and social impact.

PHYS 1006 Astronomy for Beginners [3 Credit(s)]

For students with no physics background. Introduction to our Universe; observation in astronomy; origin of modern astronomy. Newton's law of motions; gravity; light, atoms and telescope. The Sun; stellar formation and evolution; white dwarfs, neutron stars and black holes. The Milky way Galaxy; Normal galaxies, active galaxies and supermassive black holes. Foundation of modern cosmology; dark matter, dark energy and the fate of the Universe; the beginning of time. *Exclusion(s):* Level 3 or above in HKDSE 1/2x Physics OR HKDSE 1x Physics, a passing grade in AL/AS Physics, PHYS 1001, PHYS 1002, PHYS 4054