Environment

**ENVR 1000 Academic and Professional Development I**
[0 Credit(s)]
This is the first course of the series designed to assist students in developing attributes necessary for professional growth. This course is a one-year course designed to provide academic advising to students, to enhance their understanding of the latest environment topics, and to improve their communication skills. Students are required to attend discussion sessions with advisors and selected seminars. For EVMT students only. Graded P or F.

**ENVR 1010 Introduction to Environmental Microbiology**
[3 Credit(s)]
[Previous Course Code(s): ENVR 001] This is an introductory course on Environmental Microbiology for students without relevant background. Concepts covered include occurrence, diversity and distribution of microbes in the environment, major groups, life cycle characteristics and growth patterns; the roles of microorganisms in the environment and their impacts on environmental processes as well as their applications to industrial processes.

**ENVR 1030 Environment and Health**
[3 Credit(s)]
[Previous Course Code(s): ENVR 003] This course is intended for UG students of all backgrounds. The course will cover concepts in environmental health including topics on outdoor and indoor environments, workplace, water and sewage, food, genetically modified organism, solid waste, communicable diseases, vectors and control, injury prevention, ionizing and non-ionizing radiation, environmental health standards, monitoring methods, energy related health issues, natural and manmade disasters, etc. The discussions on each of these topics will include nature of the issue, known and potential health effects, control and regulatory approaches. Local and regional examples will be used where applicable.

**ENVR 1040 The Environment and Society - A Comprehensive Perspective**
[3 Credit(s)]
[Previous Course Code(s): ENVR 004] This course provides students with a comprehensive understanding of the interaction between society and the environment. The class will examine the social, technological and environmental impacts of human societies past to present. This will include evaluating select environmental issues, such as climate change, from economic, social, scientific, business and health points of view.

**ENVR 1050 The Sustainable Citizen**
[3 Credit(s)]
[Previous Course Code(s): ENVR 005] The aim of this course is to show how sustainability can be applied to the home and business environment. In addition to introducing students to a range of scientific issues the module will provide students with enhanced confidence in the balanced and accurate communication of scientific issues.

**ENVR 2000 Academic and Professional Development II**
[0 Credit(s)]
This is second course of the series designed to assist students in developing attributes necessary for professional growth. This course is a one-year course designed to provide academic advising to students, to enhance their understanding of the latest environment topics, and to improve their communication skills. Students are required to attend discussion sessions with advisors and selected seminars. For EVMT students only. Graded P or F. Prerequisite(s): ENVR 1000

**ENVR 2010 Environmental Science Fundamentals**
[3 Credit(s)]
[Previous Course Code(s): ENVR 101] Understanding our environment, including the ecology, biodiversity and cycles of environmental ecosystems, human environmental impacts such as climate change, energy use, chemical toxicology, waste disposal, water and air pollution; conservation; exploration of new green technologies to reduce impacts, environmental law and changes in policies to ensure sustainability. Case studies through group projects. Exclusion(s): CIVL 1140

**ENVR 2020 Urban Air Pollution**
[3 Credit(s)]
[Previous Course Code(s): ENVR 1020, ENVR 002] 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.

**ENVR 2110 Introduction to Sustainable Development**
[3 Credit(s)]
[Previous Course Code(s): ENVR 111] Sustainable development integrates improvements in human welfare with improvements in the health of the environment. It is societies attempt to solve the degradation that economic and social development has imposed on the environment. To solve environmental crises such as climate change, pollution, or destruction of biodiversity we need to integrate environmental practices into all
our activities, pulling together new technologies, lifestyles, economic theories and business practices, and government policies. This course looks at how this process of integration works at the international, national, and municipal levels and from the organization perspectives of different industrial sectors, businesses, and communities.

**ENVR 2810 Environmental Management and Technology Study**

*Trip I*

[Previous Course Code(s): ENVR 181] The course is a study trip that will provide students with the opportunity to travel with a faculty member to various study sites that have a diversity of environmental or sustainability issues and see and discuss issues at the site with practitioners. The course will require students to prepare a presentation on one particular site and write a reflective report on their experience. Approval from instructor is needed for enrolling in the course. Grade P or F.

**ENVR 3000 Academic and Professional Development III**

This is the third course in the series designed to assist students in developing attributes necessary for professional growth. This course is a 2-semester course designed to provide academic advising to students, to enhance their understanding of the latest environment topics, and to improve their communication skills. Students are required to attend discussion sessions with advisors and selected seminars. For EVMT students only. Graded P or F. Prerequisite(s): ENVR 1000 and ENVR 2000

**ENVR 3210 Environmental Technology**

This course emphasizes on the fundamental science and engineering principles of the innovation, design, development and application of environmental technologies for conservation and pollution abatement. The course covers both existing and emerging environmental technologies for the sustainable development including energy conservation and renewable energies, carbon neutral lifestyle, green building, manufacturing and processing, technologies for improved air, water, soil qualities, waste reduction and reuse, etc. Exclusion(s): CENG 1700, CIVL 1140, CIVL 2410

**ENVR 3220 Energy Resources and Usage**

[Previous Course Code(s): ENVR 222] This course provides a non-technical overview of energy resources and their usage with a focus on policy issues and options related to ensuring adequate future supplies at acceptable prices and limiting environmental impacts. Environmental impacts will be considered primary with respect to air pollution, but also as appropriate, with attention to water quality and quantity impacts, and land degradation resulting from energy extraction, conversion, and use. Concerns about potential resource exhaustion (e.g. peak oil), future prices, climate change (and strains on other planetary boundaries) will also be considered.

**ENVR 3310 Green Business Strategy**

This is a course about new strategic opportunities arising from environmental risks. Public and regulatory demand for environmental products and services must co-exist with the corporate institutions of maximizing shareholder wealth. This course examines both the theoretical and practical issues that arise in attempting to balance the health of the natural environment with value creation. Is there an inherent conflict between the institutions of business and our ability to care for the environment? What competitive opportunities are created for firms and what do they have to do to seize these opportunities? The lessons from the course will be of interest to both students of strategy and the environment.

**ENVR 3410 Economics for Environmental Policy and Management**

This course begins with a brief review of key economic principles (e.g., economic as distinct from engineering efficiency, comparing benefits and costs at the margin, discounting). It then moves on more in-depth treatments of areas that are the focus of environmental economics. These include externalities, common property resources, market failure, ’valuation’ of un-priced impacts of economic activity, and policy instruments for controlling pollution and other forms of environmental degradation. Throughout the course, the emphasis is on fostering an intuitive understanding of the topics and how they relate to real world decision making. For EVMT students only. Prerequisite(s): ECON 2103 OR ECON 2113 OR ECON 2913 OR ECON 3113

**ENVR 3420 Environmental Law and Regulations**

The course will provide students with the basic legal concepts which include the hierarchy of courts in Hong Kong, the difference between civil and criminal proceedings and their possible redresses or remedies available from the courts. Important provisions of the basic environmental legislation in Hong Kong, environmental prosecution policy of Hong Kong and how to investigate a judicial review against a ministerial decision relating to the environment will also be covered in the course.

**ENVR 3810 Environmental Management and Technology Study**

*Trip II* [1 Credit(s)]
This course is the second of two study trip courses directed at Division of Environment students in their second or third years of study. The course is a study trip that will provide students with the opportunity to travel with a faculty member to various study sites that have a diversity of environmental or sustainability issues and see and discuss issues at the site with practitioners. The course will require students to participate in the background research and selection of sites as well as assist in coordination of site visits. Students will prepare an in-depth presentation on one particular site and prepare a reflective report on their experience. Approval from instructor is needed for enrolling in the course. Graded P or F.

**ENVR 3900 Internship/Service Learning**
[1 Credit(s)]
The internship/service learning provides students a first-hand understanding of interconnected sectors of environment, business and society. Students will be working in teams enabling them to practice teamwork, communication and professional skills. The internship is a structured professional work experience in which students can apply their knowledge to problems and situations relevant to their professional preparation. Service learning benefits students by providing the opportunity to apply knowledge and skills to improve our community and solve real-world community problems as well as civic problems. The credit may be earned part-time during summer months. Students are required to take a pre-internship/service orientation session. Graded P or F.

**ENVR 4000 Special Topics in Environmental Studies**
[1-4 Credit(s)]
*Previous Course Code(s): ENVR 300* Selected topics of current interest in environmental studies. May be repeated for credit, if the topics studied are different. Graded letter grade or P/F.

**ENVR 4010 Independent Study in Environment Issues**
[1-4 Credit(s)]
Faculty directed independent study of selected topics in Environmental issues. For EVMT students and students with consent from the instructor. Graded P or F.

**ENVR 4220 Urban and Regional Planning**
[3 Credit(s)]
The course provides an introduction to the planning process in the public sector. Fundamental planning concepts, historical overview of planning, and planning methods comprise the first part of the course. These basic ideas will be followed by application of these principles to problems in urban and regional contexts. Specific topics include the legal basis for planning, land use planning and zoning, transportation planning, economic development, and environmental planning. In addition to conceptual considerations and application, attention will be given to the planning for sustainable development; strategies for conservation and management of critical natural resources; environmental ethics in land use development. For EVMT students and students with consent from the instructor.

**ENVR 4310 Green Innovation and Entrepreneurship**
[3 Credit(s)]
A critical issue for green business is managing technology-driven innovation to create sustainable competitive advantage. Major topics include: how the innovation process works; managing innovation; creating entrepreneurial companies; coping with strategic challenges facing innovators; new venture management. Students will develop their own green business plan. For EVMT students and students with consent from the instructor. *Prerequisite(s): ENVR 2110*

**ENVR 4320 Corporate Environmental Accounting and Reporting**
[3 Credit(s)]
Environmental accounting and reporting provides the means for an organization to measure environmental impacts and report them to stakeholders. This course provides an understanding of how externalities are assigned and monetarily evaluated so a student can understand the financial pressures that the environment can impose on an organization. Best practices in measuring, monitoring and reporting environmental performance will be discussed.

**ENVR 4330 Environmental Geographical Information System**
[3 Credit(s)]
This course will cover a broad spectrum of concepts and practices in Geographical Information System (GIS). It starts with the fundamental concepts and elements in geographic science and technology. Spatial data modeling and integration methods will then be discussed followed by various geospatial analysis approaches for both vector and raster data. Cartographic principles, spatial relationships, projection and coordinate systems will be discussed in depth. During the course, students will be introduced to contemporary GIS software and apply GIS technology to support local and regional environmental planning and management. For EVMT students and students with consent from the instructor.

**ENVR 4800 Environmental Management and Technology Seminar**
[1 Credit(s)]
This is a year-long seminar series presented by faculty members and guest speakers on selected topics in environmental management and technology. For EVMT students only. Graded P or F.

**ENVR 4980 Environmental Management and Technology Capstone Project I**
[3 Credit(s)]
Each EVMT student is required to complete a capstone project before graduation. This is the first course of a two-term project in which the student can synthesize and apply knowledge from their courses. The project is conducted under the supervision of a faculty member.

**ENV 4990  Environmental Management and Technology Capstone Project II**

Continuation of ENVR 4980. **Prerequisite(s):** ENVR 4980

[3 Credit(s)]