

COURSE DESCRIPTIONS 科目簡介

COURSES FOR 4-YEAR UNDERGRADUATE PROGRAMMES

SCI2001 Introduction to Scientific Literacy (3 credits)

(Prerequisite: Past or current enrollment in CCC8013 The Process of Science or any CLD course)

This course will introduce students to scientific literacy, introduce the reasons for developing individual and societal scientific literacy, and develop the knowledge, skills, and attitudes required to achieve scientific literacy.

SCI3001 Location Intelligence (3 credits)

(Remark: It is preferable for students to have taken CLD9024 Mapping Our Changing World before taking this course.)

Adopting location intelligence by analysing location-based data using a geographical information system (GIS) in business is becoming a success strategy in the competitive global economy. This course introduces students to how location-based data and information can facilitate business professionals to extract, analyse, interpret and visualise business data in maps. The traditional means of business analytics usually present results in spreadsheets, bar graphs or simple charts. Maps allow business professionals to reveal the underlying proximity relationships and trends in their data. With advances in the information and communication technology (ICT), the location-based platform of GIS is instrumental in fostering smart city initiatives to addressing issues of unplanned urbanization for sustainable urban development and better quality of life. Case studies of location-based services and GIS application examples are elaborated.

SCI3002 Environmental Science (3 credits)

(Prerequisite: SCI2001 Introduction to Scientific Literacy)

This course will introduce students to controversial environmental and allow students to apply their scientific literacy skills to better understand and communicate about the issue.

SCI3003 Conservation and Biodiversity (3 credits)

(Prerequisite: SCI2001 Introduction to Scientific Literacy)

This course will introduce students to controversial issues in conservation and biodiversity and allow students to apply their scientific literacy skills to better understand and communicate about the issue.

SCI3004 Climate Change (3 credits)

(Prerequisite: SCI2001 Introduction to Scientific Literacy)

This course will introduce students to controversial issues related to climate change and allow students to apply their scientific literacy skills to better understand and communicate about the issue.

SCI3005 Earth Science (3 credits)

(Prerequisite: SCI2001 Introduction to Scientific Literacy)

This course will introduce students to controversial issues in earth science and allow students to apply their scientific literacy skills to better understand and communicate about the issue.

SCI3006 Sustainability (3 credits)

(Prerequisite: SCI2001 Introduction to Scientific Literacy)

This course will introduce students to controversial issues in sustainability and allow

students to apply their scientific literacy skills to better understand and communicate about the issue.

SCI3007 Special Topics in Environmental Science (3 credits)

(Prerequisite: SCI2001 Introduction to Scientific Literacy)

This course will introduce students to a major current global scientific issue and allow students to apply their scientific literacy skills to better understand this issue.

SCI3008 Internship in Environment and Sustainability (3 credits)

(Note: Students may take this course as free electives with permission of the instructor based on prior knowledge of relevant disciplines.)

This course will offer students an opportunity to work at the internship placement. Each student will be assigned an academic supervisor and an on-site internship mentor. Students will be benefited from work-based learning and “real-world” experiences in knowledge areas related to environment and sustainability. Additional training workshops and/or other activities based on the learning and apprenticeship needs of the particular internship placement will be provided.

SCI3009 ESG Fundamentals: Science, Data, and Decision-Making (3 credits)

(Prerequisite(s): CCC8013 The Process of Science)

This course introduces the fundamentals of Environmental, Social, and Governance (ESG) and the frameworks that shape responsible practices. Students will explore the core concepts of each ESG pillar and how they inform reporting, metrics, and decision-making. Covering topics like climate science, health disparities, and carbon accounting, the course highlights how evidence-based analysis drives effective sustainability strategies. Through case studies, guest speakers, and site/field visits, students will strengthen data literacy and apply scientific principles within the ESG framework to advance a resilient and ethical future.

SCI4001 Science and Society (3 credits)

(Prerequisite: past or current enrollment in SCI-coded course at 3000 level)

This capstone course will pull together the skills and experiences gained through previous course work to allow students to apply these a project that addresses a community need related to a scientific issue/issues.