PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE
COLLEGE OF ENGINEERING
DEPARTMENT OF MINING ENGINEERING
ABET COURSE SYLLABI

IMM2103 ENVIRONMENTAL MANAGEMENT

Credits and contact hours:	10 UC credits / 10 hours (3 h. Lectures and 7h. Independent learning experiences)
Instructor's name:	Gustavo Lagos
Course coordinator's name	Gustavo Lagos
Textbook:	Economics of Natural Resources and the Environment, D.W. Pearce and R. Kerry Turner, 1990.
Course Catalog Description:	This course aims to enable the students to understand and use the concepts and tools used in environmental management in companies and at the country
Prerequisite Courses:	ICS2512 Microeconomic Theory
Co-requisite Courses:	None
Status in the Curriculum:	Required
Course Learning Outcomes:	Understand and use basic concepts and tools concerning environmental management.
Relation of Course to ABET Criteria:	b. Design and conduct experiments: analyze and interpret data c. Design a system, component, or process d. Multidisciplinary teams e. Identify, formulate, and solve engineering problems f. Professional and ethical responsibility j. Knowledge of contemporary issues k. Techniques, skills, and modern tools for engineering practice.
Topics covered:	A. Environmetal risk evaluation 1. Risk evaluation basics. 2. Risk perception. 3. Probabilistic risk analysis. 4. Health risks: Cientific basis. 5. Health risks: Regulation. 6. Limitations of risk analysis: uncertainty. 7. Risk management.

B. Tools of environmental management

1. Law 20.417: Creation of the Environmental Ministry, Environmental Evaluation Service and Environmental Superintendence. Back to concepts. Law 19.300: Environmental basis.
2. Environmental and emission quality standards. Prevention and decontamination plans.
3. Environmental impact methodologies. Impact identification and valuation, valuation methods and environmental factor weighs, environmental indicators.
4. Global Reporting Initiative: use and reach.
5. Life cycle analysis, theory.
6. Gaby's method and Ecoindicators 99.
7. Environmental risk evaluation methods.