



Incorporating geoethics into environmental engineering lectures – three years of experience from international students visiting Iceland

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Never before has human kind been facing bigger environmental challenges than today. The challenges are overwhelming: growing human population, increasing ecological footprints, accelerated climate change, severe soil degradation, eutrophication of vital fresh water resources, acidification of oceans, health threatening air pollution and rapid biodiversity loss, to name just a few. It is the task of environmental scientists to transmit established knowledge on these complex and interdisciplinary challenges while demonstrating that management and engineering solutions exist to meet these threats. In this presentation I will outline the concept of my environmental impact (EI) assessment course, where prospective engineering students can select a topic of their choice, assess the environmental impacts, discuss with relevant stakeholders and come up with innovative solutions. The course is structured in three parts: i) lecturing of theoretical methods frequently used within the EI assessment process, ii) interaction with local businesses to acquire first-hand experience and iii) hands on training by writing an EI statement on a selected topic (see link below). Over the course of three years over 70 prospective engineering students from all over the world have not only acquired environmental system understanding, but also enhanced their awareness and developed potential solutions to mitigate, compensate and reverse the persistent environmental challenges. Most importantly, during this process all involved stakeholders (students, teachers, industry partners, governmental bodies and NGO partners) will hopefully develop a mutual understanding of the above mentioned environmental challenges and engage in an open and constructive dialogue necessary to generate acceptable solutions.

Link to student projects from previous years:

<https://fingerd.jimdo.com/teaching/courses/environmental-impact-assessment/>