

GEOL 2411 Global Warming

4 credits course

Lecture: 3 credits

Projects(Lab): 1 credit (mandatory)

Instructor: Prof. Arne Winguth (awinguth@uta.edu; Ph: 272-2977)

Time & Location: GS104 MWF 1-1:50 pm

Text:

1. John Houghton, Global Warming The Complete Briefing , Third Edition, Cambridge University Press, 351 pp.
2. David Archer, Global Warming Understanding The Forecast, Blackwell Publishing, 194 pp.

Course Description:

Future climate changes are among the most serious environmental problems facing the world community. This class will survey the scientific basis of global warming and the impacts of climate change on human society. The course will discuss mitigation strategies towards a more sustainable environment.

Syllabus:

1. Introduction
2. Greenhouse effect
3. Carbon cycle
4. Modelling the climate
5. Climates of the Past
6. Climate prediction for 2100 and beyond
7. Impacts of climate change
8. Strategies to stabilize climate change
9. Future energy and transport concepts

Grading: Lecture: Exams (2) 20%; Final Exam 40%; Lecture Quizzes (2) 5%
Lab: Projects (8)