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SPRING 2021

Remote Synchronous T/TH 2:00 - 3:15 PM

Special Topics:

THE HUMAN ORIGINS OF GLOBAL WARMING

UST 293 | 3-Credit Course | Instructors: Dr. William Bowen and Dr. Bob Gleeson

Global warming is disrupting the quality of urban life throughout the world. The scale and severity of problems is expected to increase steadily for the rest of the 21st century. Yet scientists from many disciplines advise that small reductions in greenhouse gas emissions today can help avoid many of the worst problems in the future. But what changes do we need to make? How difficult will it be to make those changes? Perhaps it would be easier to find solutions if we had a better understanding of the origins of this crisis.

This new 3-credit course introduces undergraduate students from all majors to the complex origins of today's global warming crisis. The course helps students learn how today's global warming crisis has evolved over time. It introduces students to systems thinking, and how they can use that approach to understand the human origins of global warming.

Students will be introduced to the relevant principles of meteorology and climatology so as to meaningfully distinguish natural from human origins of global warming. Emphasis will be placed throughout the course on the four core systems from which the human causes may be understood: these include our evolved (1) urban systems, (2) economic systems, (3) political systems, and (4) technology-energy systems. Each of these systems need to be taken into account as citizens identify solutions that can be implemented today and/or in the near future in order to reduce the long-term rate of global warming.

