

Abstract Submitted
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Physics of climate change, taught as a topics a course for undergraduate physics majors MICHAEL SADLER, Abilene Christian University — While anthropogenic (human-caused) climate change is generally accepted in the scientific community, there is considerable skepticism among the general population. Science students are often asked by their peers, family members, and others, whether they “believe” climate change is occurring and what should be done about it (if anything). While the pertinent material is covered in undergraduate physics courses, it helps to review the basics in order to develop an educated perspective on this topic that is very volatile (socially and politically). The basic topics are introductory quantum mechanics (discrete energy levels of atomic systems), molecular spectroscopy, blackbody radiation, and appreciation for the scientific method (particularly peer-reviewed research). These topics are usually covered in undergraduate modern physics and thermodynamics courses, but a separate course on climate change (taught in Spring 2012) helped “put things together” for both the students and their professor.

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