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**A High School Conceptual Modern Physics Course**[1] JEFFREY BERNDT, Sioux Falls School District, ANDREW ALTON, Augustana College, BARBARA NEWITT, Sioux Falls School District, MARGARET MCMAHAN NORRIS, Black Hills State University — In the Fall of 2009 in South Dakota, the Sioux Falls School District approved a pilot one-semester conceptual modern physics course, to be developed by local physics teachers with the help of local university physics faculty and science education experts. The course was developed over a series of inservice meetings with all physics teachers in the district, and learning outcomes focused on the nature of science and scientific process and underlying concepts, such as the underlying structure of the universe and scale from the very small to the very large, models, the nature of evidence, how to apply experimental tools and techniques and the value of science to society. For the final assessment, students were required to complete a project or scientific investigation. Underlying it all was the desire to excite students about science and contemporary scientific research, a topic seldom covered in standard physics courses. The course was successfully piloted in one school this fall, will expand to a second in the spring and a third next fall, until it finally serves over 6000 students in the district. Challenges in planning and implementing this unique course will be discussed.

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