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**Overtoun M Jenda\*** ([jendaov@auburn.edu](mailto:jendaov@auburn.edu)), Department of Mathematics and Statistics,  
Auburn University, Auburn, AL 36849. *A Survey of Gorenstein Homological Algebra.*

In this talk, we will give an overview of a variety of Relative Homological Algebra that we now call Gorenstein Homological Algebra. We will give a brief historical outline of the subject and discuss Gorenstein injective, Gorenstein projective, and Gorenstein flat modules that generalize the usual injective, projective, and flat modules. In particular, we will discuss homological properties of these modules over Iwanaga-Gorenstein rings. Finally, we will discuss special properties of Gorenstein injective modules over commutative noetherian rings. (Received January 26, 2010)