

**Speaker:** Scott Nollet  
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Wednesday, April 30, 2008  
11:40 am  
258 Hurley Hall

**Title:** Extending the Noether-Lefschetz Theorem

**Abstract:**

The Noether-Lefschetz theorem says that the general surface  $S$  of degree  $d > 3$  in projective three space contains only curves which are complete intersections of  $S$  with another hypersurface. After giving some background (which will include a discussion of the statement as well as describing developments in the area from the last 25 years), I will present a generalization of the theorem and sketch an outline of the proof. At the end I'll pose some commutative algebra questions suggested by the statement and ideas in the proof.