

**Tennessee Technological University
Mathematics Department**

MATH 4850-5850: Computational Algebraic Geometry I

I. COURSE DESCRIPTION FROM CATALOG:

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4. Singular Points and Envelopes
5. Unique Factorization and Resultants
6. Resultants and the Extension Theorem

4. The Algebra-Geometry Dictionary
 1. Hilbert's Nullstellensatz

Supplementary:

1. David A. Cox, John B. Little, Donal B. O'Shea, "*Using Algebraic Geometry*," Springer; 1 edition (August 13, 1998) ISBN: 0387207066
2. Gert-Martin Greuel, Gerhard Pfister, "*A Singular Introduction to Commutative Algebra*," Springer; 1 edition (October 3, 2002), ISBN: 3540428976

VIII.