

SE 6640 : ADVANCED SOFTWARE ENGINEERING

<i>Semester Hours:</i>	3.0	<i>Contact Hours:</i> 3
<i>Coordinator</i>	Michael Decker	
<i>Text</i>	Readings provided by instructor	
<i>Authors:</i>	VARIOUS	
<i>Year</i>	Various	

SPECIFIC COURSE INFORMATION

Catalog Description:

A seminar style course covering advanced topics related to the analysis, design, development, maintenance, and evolution of large software projects through the critical examination of seminal and recent research in the field of software engineering. Approved for distance education.

Course type: **ELECTIVE**

SPECIFIC COURSE GOALS

- I can explain basic and advanced topics in software engineering.
- I can critically evaluate research papers in software engineering.
- I can develop a research topic in software engineering based on known literature.
- I can effectively present and defend a research proposal orally.

LIST OF TOPICS COVERED

- Review of basic software engineering topics (~12%)
- Software Process Models (~7%)
- Software Evolution & Maintenance (~13%)
- Software Architecture (~7%)
- Software Testing (~7%)
- Software Measurements & Metrics (~7%)
- Requirements Engineering and Traceability (~7%)
- Empirical Software Engineering (~7%)
- Software Visualization (~7%)
- Static and Dynamic Analysis (~13%)
- Project Presentation (~13%)