

Course: ENPM696 – Reverse Software Engineering

Semester: Fall 2017
Day(s): Tuesday
Time: 7:00-9:40pm
Location: JMP 2121
Instructor: Allen Hazelton

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Course Description

This course provides in-depth understanding of software reverse engineering concepts and hands-on training with reverse engineering tools, including disassemblers, decompilers, and code analyzers. Students will become familiar with both low-level software and the x86 instruction set through binary reversing sessions. This course also provides insights into many subjects such as system security, source code analysis, software design, and program understanding that will be beneficial in a variety of fields.

Grading Policy: The final grade is calculated based on the weighted sum of the scores from the breakdown as follows:

Homework Assignments40%Midterm Exam20%Final Exam20%Student Presentations10%Class Participation10%

Prerequisites:

Students must have prior programming experience, preferably with C/C++. ENPM691 or equivalent

Office Hours:

Thursdays, 5-7pm by appointment over WebEx or online chat

Textbook(s)

No required/recommended textbook.

Course Outline

The following topics are planned, however changes may occur:

- Introduction
- Operating Systems
- Assembly Code
- Binary Reversing Tools
- Software Vulnerabilities
- Malware Reversing
- Anti-reversing
- Reversing Java Bytecode
- Dynamic Analysis
- Reversing Source Code



Code of Academic Integrity

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