

Title: CSCI1310/CSCI300 Course Development

Faculty Sponsor: Malte Schwarzkopf

Abstract: For my capstone project, I worked under Professor Schwarzkopf to create course assignments and materials for the new systems course CSCI1310, which will be renumbered as CSCI300 and is considered as an intermediate course in all pathway requirements. Besides having regular duties as an undergraduate TA for the course, I spearheaded the development of two major projects. The first assignment, WeensyOS, is designed to help students understand the importance and power of kernel programming in relation to virtual memory management within a small operating system called WeensyOS. The second assignment, Vunmo, is a Venmo-like banking service in which students complete the implementation of the multi-threaded backend of Vunmo server. Its purpose is to expose students to concurrent programming, as well as problems that arise with concurrency and synchronization. The WeensyOS project was adopted from Harvard University's systems course, CS61; the Vunmo project was created from scratch with my co-UTA, Ilan Bigio.