1077-C1-410 **Risto Atanasov*** (ratanasov@email.wcu.edu), **Tuval Foguel** (tsfoguel@email.wcu.edu) and **Jeffrey Lawson** (jlawson@email.wcu.edu). *Optimizing Capstone With Multiple Constraints.*

Over the last four years of the senior capstone seminar at Western Carolina University, we have redesigned the course substantially with the goals of satisfying the University criteria for engaged student learning and following CUPM guidelines. The principal outcomes of the revised course are for each student to make connections between courses across the curriculum, to comprehend professionally written mathematics, to hone written communication skills through expository writing, to improve oral communication skills, and to prepare a résumé for a mathematics-related career. We have developed four assignments, one of which is preparing a résumé, working closely with University Career Services. For the other three assignments, each student writes a paper and gives a presentation, both prepared in LaTeX. These assignments demand increasing levels of independence and mathematical maturity, culminating in either independent research or a detailed review of a research journal article. In this talk we discuss how capstone can assess the individual student as well as the overall curriculum. More importantly, we address how to balance the many roles that our capstone is asked to serve while preserving a comprehensive and holistic mathematical learning experience. (Received August 29, 2011)