1056-J1-95   **Robert A. Blumenthal*** (`robert.blumenthal@gcsu.edu`), Department of Mathematics, Georgia College & State University, Milledgeville, GA 31061. *Great Ideas of Modern Mathematics: An Approach to a Rigorous Mathematics Course for the Liberal Arts Student.* Preliminary report.

One of the weaknesses of many of the courses aimed at the liberal arts student is that all too often they morph into either a math appreciation course or a math history course thereby transforming the experience into something other than a course in mathematics. Even if this situation is avoided, another pitfall is that many such courses are survey courses organized around a multitude of topics. As such, each topic receives only superficial treatment and the student misses the essential experience of delving deeply into an important mathematical theory. I have sought to avoid both of these situations and have taught for many years a course organized around a few selected topics in advanced mathematics. These topics must be chosen carefully and, in my experience, need to meet several criteria. Each topic must be one which the students have not encountered before and must represent a truly important mathematical idea. Each topic should be modern in the sense that it originated relatively recently and is an active area of continuing research. Finally, each topic must be able to be presented to the general student without loss of mathematical rigor. In this paper I will discuss some approaches and assignments related to particular topics which have worked well in this course. (Received July 26, 2009)