

1116-VS-1738 **Danny T Lau*** (danny.lau@ung.edu), PO Box 1358, Gainesville, GA 30503. *Suitable Topics and Appropriate Depth in a Junior/Senior Level Elementary Number Theory Course*. Preliminary report.

Elementary Number Theory is considered as the oldest branch of mathematics interchangeable with the study of Integer Arithmetic. Its problems are usually easy to state but often challenging to do. As an elective course for our Math majors, I have seven students enrolled in this Fall 2015 course where the prerequisite is successful completion of a "How to do proofs" math course. Since there are many fine free online electronic resources, I have created my own class notes based on "The Theory of Numbers" by Robert D. Carmichael, a monograph from the Project Gutenberg, and supplemented them with other online or printed books. The grading of the course consists of homework, tests, a final exam and a five-page expository term paper. By the January 2016 Joint Meeting, I would have finished the course and may reflect and assess how well I had conducted the course. I thus like to share information on the topics and the depth that I have covered with the hope of getting feedback from the audience in terms of their suitability and appropriateness. In the long run, I hope that we can establish a more standardized 80/20 undergraduate Number Theory course with 80% of its content as required and 20% as optional. (Received September 21, 2015)