UK UNIVERSITY OF **KENTUCKY**
College of Arts & Sciences
Department of Mathematics

ALBERTO CORSO

Department of Mathematics
701 Patterson Office Tower
Lexington, KY 40506-0027
☎ (859) 257-3167
✉ alberto.corso@uky.edu
🌐 www.ms.uky.edu/~corso

Re: MA/CS 416G Prerequisite (Minor) Change

January 30, 2018

Dear Colleagues,

The current prerequisite for MA/CS 416G is: **MA 213 or equivalent**. We propose changing it to the following NEW prerequisites: **MA 213 and MA 322 (or equivalent classes), or graduate student status, or consent of the department**.
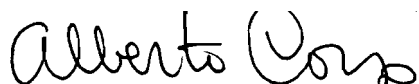
Rationale: Most students who take MA/CS 416G do so after taking MA 322. Only a very small number of students take MA/CS 416G without taking MA322. In fact, about 90% of those who take MA/CS 416G are mathematics or mathematical economics majors, and MA 322 is a core requirement for both majors.

Currently, basic concepts of linear algebra are reviewed in MA/CS 416G. The extent of such review varies from one instructor to another. Moreover, it is becoming apparent that such reviews are not sufficient for some of the students who are taking MA/CS 416G without taking MA 322 (particularly for those who barely passed MA 213). Furthermore, some of the content in MA/CS 416G relies on formal and rigorous proofs. Students who have only taken MA 213 typically have no exposure to such proofs, and most of these students have serious difficulties in this particular aspect of the course. In contrast, students do see formal proofs in MA 322, and therefore they are considerably more prepared for MA/CS 416G than those who did not take MA 322.

Graduate students taking MA/CS 416G typically learned the topics from MA 213 and MA 322 elsewhere in equivalent courses or, otherwise, in a combination of other engineering courses. Given their graduate student status they have no benefit in being formally required to take 300 level classes, hence the alternative prerequisite for graduate students.

The proposed change in the prerequisite does not imply (and is not caused by) any change in the current content of MA/CS 416G. The new prerequisites have been approved unanimously by the Undergraduate Committee of the Department of Mathematics on January 30, 2018.

Yours sincerely,

Alberto Corso — alberto.corso@uky.edu
Director of Undergraduate Studies
Associate Professor of Mathematics