



ALLEGHENY COLLEGE
Department of Computer Science

Petition for Math 205

Submitted To:
CMPSC
Department

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1 CMPSC 230 Course description

An introduction to the theories of finite-state machines, pushdown automata and Turing machines as well as the relation between automata and the formal languages they recognize. Students explore computational theory and its practical applications in lexical analysis and language parsing. Prerequisites: MATH 205 with a grade of C or better and CMPSC 112, or permission of instructor. Offered in alternate years. Distribution Requirements: QR, SP.

2 Math 205 course description

An introduction to concepts encountered in the study of abstract mathematics. Topics covered include logic, mathematical proofs, set theory, relations, functions, mathematical induction, and introductory number theory. The concepts of injectivity, surjectivity, and inverses will be discussed as well as elementary computational tools such as the Division Algorithm and Euclid's algorithm for the greatest common divisor. Additional topics may include cardinality, combinatorial, graph theory, algebraic structure, the real number system, and concepts of mathematical analysis.

3 Similarities

In the course of CMPSC 230 many of the math terms are found in math 205. In the first week of classes we spoke about sets. Although in the first days of class for math 205 they spoke about negations and truth tables, I just want to point out that it was also taught in CMPSC 250. That knowledge was already acquired from taking that class. Math 205 later than brought upon the topics of sets later through the semester. In CMPSC 230 spoke of sets more depth. In math 205 we also spoke about unions something that was also taught in CMPSC 230, and in my opinion in better detail because of fact math 205 professor went a lot faster than the CMPSC 230 professor. We also talked about proofs in both of the classes, and the different type of proofs. There are many more similarities to CMPSC 230 and math 205, but I think that most important part of both of the classes is fact they both give me the ability to look at an argument and see if it makes sense or not. Figure out if it is logically correct or not. giving me the ability to test my ideas in the sense that, I can figure out if it is faulty.

4 Personal Idea

The reason I chose to take CMPSC 230 over math 205 was because of fact that I wanted to learn as much computer science as possible. Like for example working with fine machines and things about that sort. Also, considering the fact that I also audited math 205, I can conclude the CMPSC 230 is in fact a better courses. In fact I would want to take math 205 if given the chance but due to time constraints I cannot. Also because I feel that it would be repetitive for me at this point.

5 Graduation requirements

I need to take 23 credits to graduate right now and all of the classes right now are required. If giving the opportunity to petition math 205, I would have a stronger chance of graduated on time.