CS 4124 **Theory of Computation** **Fall 1994**

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Office Hours: M–Th 1:00–2:00.

Graduate Assistant: Colin Klipsch, 555Q McBryde, klipsch@csgrad,
Office Hours TBA.

Prerequisite. Math 3134 or 3034.

Text. Lewis & Papadimitriou, *Elements of the Theory of Computation*, Prentice-Hall, 1981.

Description. This course examines computation from a theoretical point of view. We will study formal models for such familiar intuitive concepts as computer, algorithm, computation, computable, and tractable. We will use these models to consider questions that are fundamental to the whole idea of computing. For example: "What sort of problems can actually be solved by a computer?"; "Are there some problems that are intrinsically harder than others?" Our approach will be abstract and mathematical, even philosophical at times; but we will try to motivate the theoretical issues with practical examples and considerations as well.

We will do more or less uniform coverage of the first seven chapters of the text, with approximately the same number of class sessions on each chapter after the first.

Grades. Your grade will be determined as follows:

Homework assignments (about 8)	70%
Midterm exam (Oct. 14)	10%
Final exam (Dec. 12)	20%

No late homework assignments will be accepted without prior approval.

Note. If any student needs special accommodations because of a disability, please contact the instructor during the first week of classes.

VPI & SU Honor Code applies. The work you turn in must be your own. The "CS Departmental Policy on Koofers, Old Programs, Cheating, and Computer Use" applies to this course and that statement is considered to be part of this syllabus. It is your responsibility to be aware of its contents.