

COMPUTER SCIENCE 295

PROBLEM SEMINAR

I. Introduction

A. Catalog Description

Consideration of a diverse range of problems in computer science from problems in the design of correct and efficient algorithms and the implementation of data structures through problems in the theory of computation. *Prerequisites CSCI 261 or permission of the instructor.*

B. Objectives

This course gives students an opportunity to work in a group, led by the instructor, to apply the theory, tools, and techniques of a wide range of courses in computer science and mathematics to problems in computer science. It gives the student the opportunity to work on difficult problems that cut across the computer science curriculum.

C. Prerequisites

CSci 261 or permission of the instructor

II. Topics

Topics will be selected by the instructor(s) from problems available in advanced textbooks, from the instructors' experience, or suggested by current research. Where possible, students will be asked to read papers describing the research from which problems are taken, and to either present this material formally to the class or to take part in class discussions of the material.

III. Bibliography

Polya, G How to Solve it

S. Skiena and M. A. Revilla Programming Challenges: The Programming Contest Training Manual

IV. Requirements

Students are asked to work on the seminar problems between class meetings and to participate fully in class discussions.

V. Notes

The course will meet one hour / week, is graded only on a Pass/Fail basis, carries no credit, and may be repeated as often as desired.