

MSCS



Mess

Department of Mathematics, Statistics and Computer Science
St. Olaf College
Northfield, MN 55057

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This Week's Colloquium

Title: The New CS Senior Capstone Seminar
Speakers: Members of CS 390, Interim 2005
Time: Thursday, March 17th, 2:30 pm
(treats at 2:15)
Place: SC182

Ever wonder what a senior Computer Science (CS) major can do? CS 390, Senior Capstone Seminar, is like a showcase, because it consolidates the computer science concepts, project teamwork, ethical education, and communication skills developed throughout the CS major in a single course. The first offering of CS 390 took place last Interim. This talk will include an overview of what's in the course, demonstrations of software that was developed, excerpts from the various papers and talks that were written, and comments on what it was like. Count this presentation as an ideal opportunity to see what happens in the CS Senior Capstone Seminar, and what our senior CS majors can do!

Speakers:

Robert Crawford '05 is a CS major. During his time at St. Olaf, Robert has been involved in numerous team projects, including SSR, ACE, and CPET. He is seeking computing related employment for next year.

Aaron Etshokin '05 is majoring in CS and Mathematics. A longtime CS student assistant with involvement in many student projects, Aaron has accepted a position in the IT department at Minnesota Life for next year after a good internship experience there last summer.

Matt Handley '05 is majoring in CS and Mathematics. Matt has had a vital interest in Computer Graphics since long before he arrived at St. Olaf, and has been a student worker in media for IIT for years. He plans graduate school in CS for next year.

Chris Mueller '05 has majors in CS and Studio Art. He has worked for IIT as the assistant college webmaster since his sophomore year, and was an undergraduate researcher in CS last summer, where he developed a prototype of the CPET software. Chris plans to work in the computing industry next year.

Mike Smith '05 is a CS-Music double major; his senior recital in saxophone and voice was great last Wednesday! Mike has years of experience dealing with viruses and other pests for IIT. He intends to work in the computing industry after graduation.

Monday is **PI**-day!!!

Come enjoy pie with the MAA and the MSCS department at 6:30 pm on Monday in the Science Center lobby. Luke Anderson '02 will be giving a fun and interesting talk about π and its magnificence at 7:00 pm in SC 278.

Last Week's Problem

Thirty-five young people were invited to take part in a mathematics contest (something like the Konhauser). Unfortunately, several of them were delayed and could not be present at the appointed time. Each problem in the contest counted for one point. If the women had each solved five problems and the men had each solved four problems, the total score of all contestants would have been 4 percent more than if the men had each solved five problems and the women had each solved four problems. Did more than 10 women take part?

Congratulation to **Bob Hanson** for submitting a solution this week. Let w be the number of women who attended and m the number of men. If the women each solved 5 problems and the men four, the total score is $5w + 4m$. If the women solved 4 and the men 5, the total score is $4w + 5m$. Thus $5w + 4m$ is 4 percent more than $4w + 5m$ giving the equation $5w + 4m = (1.04)(4w + 5m) = (104/100)(4w + 5m)$. Multiply both sides by 100 to get $500w + 400m = 416w + 520m$ and $7w = 10m$. The clue is that 35 took part and "several" missed, so $w + m \leq 33$ and 7 divides $10m$, so 7 divides m . This leaves 7 or 14, or larger as numbers for the men, but already if $m = 14$, then $w = 20$ and the total is too large, so $m = 7$ and thus $w = 10$.

Problem of the Week

Write a digit in each square of a 2×2 grid. We can read the digits in the rows (from left to right) and the columns (from top to bottom) and think of them as four two-digit number. Suppose that the three two digit numbers found in the rows and the first column are divisible by K . Does the number in the second column have to be divisible by K ?

*** Please submit all solutions by Wednesday at noon to Amelia Taylor (e-mail: ataylor@stolaf.edu) or by placing them in her box at OMH 201.

***If you would like to receive a copy of the Math Mess in your P.O. Box weekly, please e-mail Donna Brakke at brakke@stolaf.edu.

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