Southern Oregon University proudly presents the Kieval keynote Lecture by Professor Edward J. Burger, Williams College

# Magic with Mathematics: Is the formula faster than the eye?

Thursday, May 10<sup>th</sup> at 7:30 pm Science Building (SC) 118 at SOU



Is mind-reading possible? Can you make your dorm room bigger without throwing out your roommate? Can you break the bank at Vegas with dice? And perhaps the most compelling question: Do math professors know how to dress? These questions and others will be answered in this entertaining and lively presentation. No mathematical background is necessary and no mathematics will explicitly be discussed. If you hate mathematics, this talk is for you. If the sight of an equation makes you ill, this talk is for you. If you never thought you would ever go to a math lecture, this presentation is for you! This special event is open to the general public. Children and families are invited.



Edward Burger is a nationally recognized math professor who has written jokes for Jay Leno, had his own comedy radio show, won numerous scholarly teaching awards and is a hilarious mathematics evangelist. Burger, who has appeared on a number of radio and television stations, including National Public Radio and NBC, and worked as a stand-up comedian while finishing his doctoral degree at the University of Texas at Austin. Edward Burger will do almost anything to get students interested in math. He is the author of many books including "The Heart of Mathematics: An invitation to effective thinking" and "Exploring the Number Jungle: A Journey into Diophantine Analysis."

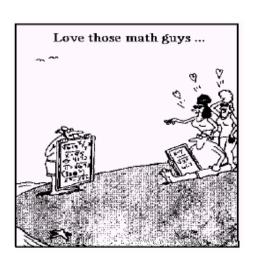


#### Southern Oregon University proudly presents two additional Kieval Lectures by Professor Edward J. Burger

### How to Always Win at Limbo

Friday, May 11<sup>th</sup> 9 am at Britt Ballroom

Have you ever gone out with someone for a while and asked yourself: "How close are we?" This presentation will answer that question by answering: What does it mean for two things to be close to one another? We'll take a strange look infinite series, dare to mention a calculus student's momentarily fantasy, and consider transcendental meditation. In fact, we'll even attempt to build some very exotic series that can be used if you ever have to flee the country in a hurry: we'll either succeed or fail... you'll have to come to the talk to find out. Will you be at the edge of your seats? Perhaps; but if not, then you'll probably fall asleep and either way, after the talk, you'll feel refreshed. No matter what, you'll learn a sneaky way to always win at Limbo.



# Cutting cake for greedy people: Can conflicts be resolved by making piece?

Friday, May 11th 3 pm at SC 118



Can birthday cakes lead to world peace? Are strong negotiating skills required to share a pie or is it best to avoid all communication? How about a bundt cake? How about the Middle East? Here we will consider these questions and others and, as the icing on the cake, we'll answer some.

#### About Edward J. Burger

## BY KIRSTEN STEWART THE SALT LAKE TRIBUNE

Burger, who has appeared on a number of radio and television stations, including National Public Radio and NBC, and worked as a stand-up comedian while finishing his doctoral degree at the University of Texas at Austin.

Edward Burger will do almost anything to get students interested in math, including dropping his pants. "Sex sells," jokes the number theory specialist and Williams College professor, who used just such a tactic Monday before an audience of more than 200 during a public lecture at Westminster College in Salt Lake City. The antic has shock value, acknowledges Burger, who is visiting Salt Lake City this week as Westminster's 2001 Distinguished Resident. But the true purpose of the exercise is to demonstrate a concept in topology, a branch of mathematics, in an entertaining, and hopefully more meaningful, way than working through equations. In the process, says Burger, you hope to get students thinking about the world in way they never have before. Like geometry, topology works with shapes -- shapes that bend, said Burger. Burger introduces students to this arcane field by tying his ankles together with a rope, dropping his pants, turning them inside out and pulling them back on -- all without breaching the rope. He then explains the secret behind the magic trick, using a concept in topology. Whether students walk out of the auditorium as math converts or with a more intimate knowledge of topology is not the point, says Burger. What's important is that they learn to see the world differently, he says. "That's what education should be, a mind-altering experience." Most people see math as a foreign, isolated discipline, Burger says. "But it's a reasoning process that allows us to see the world in a more structured way." But to awaken students to the reasoning processes, you have to reach people where they are, he adds. For philosophy students, this might mean talking about the math behind the mind-warping notion of infinity. And for students of a figure-painting class, Burger might choose to discuss mathematical nuances of the fourth dimension. But don't let Burger fool you. Although he is not above greeting audiences with a boom box playing Jimmy Buffet's song, "Math Sucks," Burger is a serious mathematician. His field of interest, number theory, which examines the structure and complexity of numbers, is one of the oldest branches of mathematics. He has authored more than 60 articles and co-authored, The Heart of Mathematics--an Invitation to EffectiveThinking.