The Fullerton College Mathematics Colloquium
presents

Dr. Bill Cowieson
Fullerton College

"The Bateman-Horn Conjecture"

ABSTRACT:

Given a finite set F of polynomials with integer coefficients that are not factorable over the integers, Dr. Cowieson will explain what it means for a positive integer n to be F-prime-generating. If $P_F(x)$ denotes the fraction of all positive integers less than x that are less than x, then the Bateman-Horn conjecture, which has been neither proven nor disproven, is that $P_F(x)$ behaves like an expression involving integrals, logarithms, and products, over all primes, involving numbers of positive integer zeros (modulo p) of the product of the polynomials in F. Nonsense, you say? Come to this talk and you will understand all of the terminology in this paragraph, as well as what this conjecture, which has been an open problem since 1962, really says.

Annalise Bui
Fullerton College

"The Erdös-Gyárfas Conjecture"

ABSTRACT:

Ms. Bui is an ENGAGE in STEM Summer Research Intern under Dr. Dana Clahane, and was the recipient of the 2011-12 Nilane Lee Memorial Scholarship.

This conjecture is one of several well-known problems in an area of mathematics called graph theory (or, network theory, if you prefer). Erdös, arguably the most prolific mathematician in history, offered a $100 prize for a proof of (or $50 for a counterexample to disprove) that any graph with minimum degree 3 contains a simple cycle whose length is a power of 2. Ms. Bui will explain what this terminology means, so that participants will be able to understand what this conjecture, the title of this talk, says. This problem has been open for 17 years.

Thursday, September 20, 2012
12:45-2:50pm
North Science Building, Room 623
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321 E. Chapman, Fullerton CA 92832-2095

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