

1035-97-1792      **Manmohan Kaur\*** (mkaur@ben.edu), Department of Mathematics, Benedictine University, 5700 College Road, Lisle, IL 60532. *Cryptology: An Attractor Set for Undergraduate Research.*

In order to get undergraduates interested in mathematics, it is essential to introduce them to interesting and challenging problems in the field. Research opportunities serve not only as a catalyst to understand and appreciate a particular branch of mathematics, but also to kindle their long-term interest in mathematics in general.

In this presentation, we will discuss how Cryptology can be used to motivate undergraduates from different backgrounds and interests to do useful research in mathematics. In particular, we will describe a popular course which has resulted in mathematics research by a wide spectrum of students. The course is a modified Number Theory course, complete with all the rigor of abstract mathematics. Typically the students have very different primary emphasis: it varies from math, to computer science, to chemistry, to engineering and law. Most of the students find connections between mathematics and their primary field of study, and appreciate mathematics in action as it applies to issues that affect them in everyday life. These students have presented their work off-campus at various professional meetings in the Midwest. A paper describing this course is accepted for publication by PRIMUS, a publication of the United States Military Academy. (Received September 20, 2007)