Summermath 2001 Program Description and Instructional Staff

Summermath 2001 is a 4-week course for incoming high school freshmen, designed to provide these students with a series of unique and hands-on experiences with mathematics. Topics to be covered are closely aligned with the Illinois State Learning Standards for Mathematics, with a particular focus on reading graphs, interpreting data, working with geometric concepts, and statistics. Working collaboratively, students will be encouraged to communicate, think critically, solve problems, use technology, and recognize and apply connections among mathematical ideas.

**Technology:** Course activities will feature the use of cutting-edge technologies currently employed in mathematics education. These tools will provide students with a variety of means to collect and interpret data, construct geometric figures, and build mathematical models. The course will make particularly extensive use of the following technological tools:

- Graphing calculators
- Calculator-Based Laboratories (CBLs) and over 20 different sensors, allowing students to collect data from real physical situations.
- Online personal computers, equipped with powerful software such as Geometer’s Sketchpad, Microsoft Word, Excel, and Powerpoint.

**Course Structure:** “Mathematics and Popular Culture” will be the theme of the course, unifying the mathematical ideas presented to the students. Therefore, activities will be investigated in contexts such as “mathematics and the movies” and “mathematics and sports”. Furthermore, each week of the course will focus on a different mathematical idea, to be patterned after the Illinois State Goals for Mathematics, #7-10

- Goal 7: Estimation and measurement
- Goal 8: Algebra and analytical methods
- Goal 9: Geometry
- Goal 10: Data analysis and probability

* Goal 6: Number sense” will be stressed throughout the course.

*(For information on the SummerMath 2001 Teachers, see next page.)*
Summermath 2001 Teachers

April M. Bucher

Ms. Bucher is currently Director of the Merit Workshop Program in the Department of Mathematics at the University of Illinois at Urbana-Champaign, where she is also enrolled as a Ph D student in mathematics education. She has a bachelor’s degree in mathematics from Bradley University, where she was a recipient of the Robert Michel Scholarship, and a masters degree in the teaching of mathematics from the University of Illinois. Prior to coming to the University of Illinois she was an Industrial Technology Mathematics Teacher at Peoria Manual High School and a summer school teacher for the Peoria Urban League. She has an outstanding record as a teacher, both at the high school and college levels, most recently being named to the University’s incomplete list of teachers ranked as excellent by their students. In 1999, she was named a Max Beberman Fellow, an award designed to attract promising scholars into the University’s doctoral program in mathematics education.

Mikkel A. Storaasli

Mr. Storaasli is currently a mathematics teacher at West Leyden High School in Northlake, Illinois. He graduated from William Fremd High School in Palatine, Illinois, and after serving in the US Army, entered the University of Illinois at Urbana-Champaign. He received his BS degree in the teaching of mathematics in 1996, with University Highest Honors (Bronze Tablet) and his MS degree in mathematics education in 1999. While at the University, he was a teaching assistant in statistics and was named to the incomplete list of teachers ranked as excellent by their students. At West Leyden, Mr. Storaasli has been providing leadership in various curriculum development activities including conducting field trials for the NSF-funded Core Plus mathematics materials, preparing for Leyden High Schools’ first offering of the Advanced Placement (AP) Statistics course, and working with the SuperComputing 2000 Education Program, which is one of 25 nationwide teams developing computer-based instructional materials in mathematics and science.