

THE DIRECTOR'S SUMMER PROGRAM

CRYPTOLOGIC MATHEMATICS FOR EXCEPTIONAL UNDERGRADUATE STUDENTS IN MATHEMATICS

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The Director's Summer Program (DSP) is the National Security Agency's (NSA's) premier outreach program to the nation's most outstanding undergraduate mathematics majors. Each summer we invite about two dozen exceptional students to collaborate with each other and with NSA mathematicians on problems critical to the intelligence gathering and information assurance missions of the agency. Admission to the 12-week program is highly competitive. Applicants should have demonstrated superior mathematical aptitude. A full year of abstract algebra and analysis are strongly recommended. Some computer experience is desirable.

DSP participants work on a wide range of problems in mathematics, cryptology and communications technology. These problems often involve applications of abstract algebra, geometry, number theory, probability, statistics, combinatorics, graph theory, algorithms, computer science and analysis. At the beginning of the summer, students are presented with introductory lectures on modern cryptologic mathematics and with descriptions of several current problems of interest. Each student chooses one or two problems as the focus of his or her research. Students document their work in technical papers which are internally published at the Agency.

Information about the DSP is sent to over 300 colleges and universities each year. In addition, students who have scored well in the annual William Lowell Putnam Mathematical Competition are invited to apply. Because of the lengthy processing required, applications must be submitted online on or before October 15th each year. Applications received after the deadline, as well as incomplete applications, will not be considered. To apply, students must submit a resume, at least two letters of recommendation from faculty members who can speak directly to his or her mathematics background, and copies of transcripts from all colleges and universities attended through the current academic year. Applicants must be U.S. citizens capable of obtaining a security clearance. Resumes must be submitted online, while letters of recommendation and transcripts should be sent to: National Security Agency, ATTN: R1 (DSP), Suite 6515, Fort George G. Meade, MD 20755-6515.

The DSP is held at NSA headquarters from late May through mid-August. Students are paid a competitive salary based their education level. In addition, students receive annual, sick and Federal Holiday leave. Housing accommodations can be arranged upon request. Students who attend schools in excess of 75 miles from Fort Meade, MD, are eligible for a round-trip airline ticket to and from school, or mileage reimbursement up to the cost of a government issued airline ticket.

The Director's Summer Program is an extremely rewarding summer experience! For additional information, please call Tonya Viola, Program Manager, at (301) 688-0983, or send e-mail to math@nsa.gov. For more information about career opportunities at the NSA, visit www.nsa.gov.