Borough of Freehold Public Schools



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Michael Lichardi Board President Rocco G. Tomazic, Ed.D Superintendent

July 6, 2015

Press Release

<u>Freehold</u>: The Freehold Borough Public Schools 21st Century program is teaming with Kean University to bring a rich program of computer science experiences to Freehold Intermediate School students this summer. The program will run for three weeks, July 6-23, 2015, and will be held in the Freehold Intermediate School Tech Lab. The program is funded by a Kean University Foundation Faculty Research Award. More than twenty students from Freehold Borough will participate in the course.

The Freehold Borough 21st Century Community Learning Center (21st CCLC) provides quality experiences for students outside of regular school hours to ensure student achievement. The 21st CCLC program is grant-funded and provides opportunities for academic, artistic, and cultural enhancement activities to students and their families when school is not in session. The program is open to all Freehold Borough students, 4th-8th grade.

The Kean University research grant being implemented this summer is entitled "New Multimedia Curriculum and Summer Program to Promote Computer Science Education for Middle School Students." The grant grows from a research paper entitled "Pathway from Learning Multimedia Software to Computer Science Education" that was written by Assistant Professors Ching-yu Huang and Jing-Chiou Liou of Kean University and Grace Huang, an undergraduate student in the University of Pennsylvania's Digital Media Design program.

Freehold Intermediate School students will be introduced to three basic areas of computing. They will start by using Weebly, the free web hosting service, to learn techniques to prepare multi media submissions, geared to helping them make a specific submission to the National History Day competition. They will also learn to manipulate Windows Movie Maker to enhance their multimedia skills. The third area of focus will be with Microsoft Excel, using macros and other features as a means to manipulate data in support of their schoolwork. Under the overall control of Kean University Assistant Professor Huang, the course will be taught by Kean University computer science student Richard Olszewski and he will be assisted in the classroom by volunteer student teaching assistants from Colts Neck HS, Marlboro HS, Montgomery HS, Holmdel HS and High Technology HS.

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Freehold students will also benefit from the work from Kean University Assistant Professor Carolee Stewart-Gardiner. Based on her research entitled "Influencing middle school girls to study computer science through educational computer games," Professor Stewart and her colleagues have been awarded a National Science Foundation Pathway Grant. Freehold Intermediate School students will be exposed to various games such as the Algorithm Game and the Data Search Game. These games do not use computers, rather they teach the students computer science concepts and principles through the use of puzzles.

Starting with the just completed 2014-2015 school year, Freehold Borough has enhanced its technology program for all middle school students. Each Freehold Intermediate School student takes one marking period of technology each year in 6th, 7th and 8th grade. The capstone of the technology program is working with robotics using LegoMindstorm.

As an outgrowth of this emphasis on technology, the 21st CCLC organized a new chapter of the Technology Student Association (TSA). This past April, Freehold Intermediate School sent 41 TSA Club students to The College of New Jersey to compete in the 2015 New Jersey TSA Middle School State Competition. The students earned awards in five areas, including:

- Environmental Focus, 1st place
- Promotional Design, 2nd place
- Water Infrastructure, 2nd place
- Community Service Video, 3rd place
- Geospatial Technology 3rd place

The Technology Student Association fosters personal growth, leadership, and opportunities in Science, Technology, Engineering, and Mathematics (STEM). Members apply and integrate these concepts through co-curricular activities, competitions, and related programs. TSA is comprised of over 190,000 elementary, middle, and high school students in 2,000 schools nationwide, spanning 48 states. The Freehold Borough TSA Club is run as part of the 21st CCLC.

"Being proficient in technology is a skill for all students, regardless of their other abilities," said Rocco Tomazic, Superintendent of the Freehold Borough Schools. "Our students have shown that given the opportunity, they can compete as equals with their peers. We greatly appreciate the involvement of Kean University and the volunteer high school students to bring this high quality computer science program to our students."

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The exposure to computer science provided by this program will give Freehold Borough students a conceptual pathway pointing to computer courses in high school and to college and career afterwards. Studies confirm that future careers will include a high demand for individuals with computer and information technology skills. This program seeks to encourage middle school students to work on projects using multimedia software and puzzles, thus garnering an early interest in utilizing computers and in developing abilities useful in computer science. For those students whose interests may eventually bring them deeper into the computer science field, their transition to computer programming and software engineering will be made easier by this early exposure to a wider array of computer applications.

"This program will provide the opportunity for our students prepare for leadership roles in STEM by receiving the experience and skills needed to be successful in High School, College and future careers," said Ronnie Dougherty, Principal of Freehold Intermediate School and the Director of the 21st Century Program.

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3 photos attached:





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