

Opportunity to Join the ECU ITEST Team
National Science Foundation Program: Information Technology Examples for Students and Teachers

“Biomechanics and Robotics Explorations for IT Literacy and Skills in Rural Schools”

Overview:

A team of ECU faculty members have been awarded a three year grant by the National Science Foundation to develop and implement biomechanics and robotics based lessons and examples into the high school science and mathematics class room. Currently, Greene, Wilson, Duplin, Onslow, and Jones counties are participating in the partnership and an abstract of the project is attached. The purpose of this information package is to solicit your involvement as a member of the ITEST team. This is an opportunity for curricular innovation and making an impact on student and parent attitudes on engineering, science, and mathematics careers.

Involvement of Faculty and Guidance Counselors

The involvement of the participants is focused on one statement: “It is all about applications!” Teams of three (two teachers with a science or math background and one guidance counselor) from ten high schools will attend a two week Information Technology Academy at ECU during the summer. Based on your leadership and involvement, we want to:

- Increase the opportunities for a broad range of students and teachers to learn about, experience, and use information technologies.
- Develop lessons and approaches to help teachers infuse Information Technology (IT) into their mathematics and science lessons and stimulate students’ interests in these careers.
- Help teachers use realistic activities as the driving force for infusing IT explorations into the classroom.
- Change attitudes of parents and students about selection of and priority of engineering, science, and mathematics careers.

We want to recruit participants who are *change agents* and want to make a difference by helping us meet our project goals.

How Will This Be Accomplished?

Participating teachers and guidance counselors will be involved in a series of events:

- Participant Orientation Session: Attend an orientation session at ECU (probably Friday, January 26) to review the instructional approaches, plans for summer, and your expectations for participation.
- Recruiting Students: Help us recruit six underprivileged students from your school to attend the three week Information Technology Academy for Students (ITAS).
- Information Technology Academy for Teachers (ITAT): During the summer, attend a two week biomechanics and robotics academy. Learn about the IT areas of biomechanics and robotics, help us fine tune the lessons we have planned, and develop new areas of instruction for you and your students.
- Information Technology Academy for Students (ITAS): During the first week of the three week session for students, teachers and counselors will have the opportunity to try out lesson plans and instructional approaches.

- Parent – teacher symposia: ECU faculty will work with you to conduct two parent-student- teacher symposia to influence the community of parents and students at your school about information technology, the ITEST experiences, and careers in engineering and science.
- Assessment: Work with us to measure the impact and results of our collaborative efforts.

What Class Room Support Will Be Provided?

Each participant will receive a package of instructional materials which will include lesson plans, robot kits, software, and all needed materials to take back to the class room. In addition, a series of support visits and seminars will be conducted to help you continue to become more proficient in using the provided materials in the class room.

Is there a Stipend for Participation?

Participating faculty and guidance counselors will be paid a \$1,000 stipend and mileage will be reimbursed at \$0.45 per mile.

Current Proposed Schedule Summary

- Orientation at ECU: January 26th
- Recruitment of Students: February and March
- First Symposium with parents, students and teachers: April
- Academy for Teachers: July 9-20
- Academy for Students: July 16- August 3