

**Engineering and Technology Industry Council
Core Investment Plan
Biennium from July 1, 2005 to June 30, 2007**

Campus: Pre-College Collaborative Proposal

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Summary of Proposal:

Under this proposal the three collaborating institutions (Saturday Academy, OIT Pre-College Programs and the OSU Extension Service) will use *existing infrastructure and proven programs* to coordinate the delivery of high quality science, math, technology and engineering education to pre-college youth statewide. Each program will assist the others in identifying and referring interested students to the appropriate programs. These direct investments in the “pipeline” will contribute to the long-term economic growth of Oregon.

OIT Summary: OIT Pre-College Programs will offer hands-on outreach programs to K-12 students to explore careers in math/science and engineering and encourage the pursuit of these degrees and careers. A focus in the rural initiative will be teen women and Hispanic and Native-American youth. OIT will continue it’s Teen Women in Science & Technology, Expanding Your World, Women in Engineering Day, I’m Going to College, Tech Challenge, and MATHCOUNTS programs. OIT will collaborate with Saturday Academy to develop a Saturday Academy style program in Klamath Falls, through which it will offer Engineering related classes. In addition, support of Advanced College Placement (ACP) and High School Transition (HST) classes providing dual credit for high school students will be expanded (metrics to be reported through the institution). OIT will also assist OSU Extension with speakers and facilities for its 4-H Youth Summer Camp in business and information technology.

OSU Extension Summary: OSU Extension Service will provide non-formal education for rural 4-H and other youth in gaining technology skills, increased awareness of science and technology careers, and advancing their entrepreneurial abilities. This effort will aid a diversity of rural 4-H and other youth in pilot counties with flagging natural resource-dependant economies. University student interns will also participate in mentoring these rural 4-H youth. OSU Extension will assist Saturday Academy to boost their ASE apprenticeship program by helping to recruit mentors in pilot counties; and will assist OIT in promoting their pre-college programs to regional 4-H youth.

PSU/Saturday Academy Summary: Saturday Academy will continue its AWSEM program for girls in science; develop summer ASE apprenticeships in engineering and technology; continue and expand its science-focused offerings within the Portland metropolitan area; support OIT as requested in expanding their “Saturday Experience” program in Klamath Falls; and collaborate with OSU Extension by bringing ASE apprenticeships to pilot counties and sharing ASE information with youth attending the 4-H Extension summer camp in business and information technology.

Goals

Macro:

- Instill in pre-college Oregonians an understanding of the world of science, technology and engineering as it relates to their own career choices, thereby resulting in a greater number of young people entering these professions
- Serve a geographically and socially diverse population
- Leverage and expand capacity through institutional collaboration

Micro:

- Introduce participants to role models and mentors in math, science, engineering and technology
- Increase participants' interest and provide a better understanding and awareness of math, science, engineering and technology related careers
- Build participants' confidence and skills in technical and entrepreneurial endeavors
- Provide opportunities to practice creative problem solving in real world situations
- Increase participants' team, communication and technology skills needed to succeed in the workplace
- Enable participants to experience the relationship between engineering/technology disciplines and their applications to everyday life

Investment Description

The need to pique younger students' interest in these fields and encourage their development in math, science and technology is critical for the continued economic growth of Oregon and our citizens. In order for Oregon to realize sustained improvement in this area, long-term programs for young Oregonians must be in place and supported over time. Students will be supported in examining science careers at critical transition points in their lives—late elementary school, middle school and high school. This investment represents 3.5% of the core ETIC investment, 1.5% less than in FY01-03.

Pre-college investment for the biennium - \$740,000

OIT Pre-College Programs: \$200,000

OSU/Extension: \$270,000

PSU/Saturday Academy: \$270,000

Private support will be reported through each program's host institution.

Results

Metrics will be numbers of students served and contact hours. Each collaborating partner will submit financial metrics through its host institution.

| | AY99 (Base) | AY06 | AY07 | AY08 | AY09 |
|-----------------------|----------------|---------|---------|---------|---------|
| • Student Enrollments | 3556 | 6160 | 6,560 | 6,960 | 7358 |
| • Contact Hours | 96,517 | 114,295 | 115,910 | 117,525 | 119,358 |