

I hear...and I forget
I see...and I remember
I do...and I understand



Named a *Program of Excellence* by the Colorado Commission on Higher Education, the ITL Program provides summer engineering workshops and classes to extend hands-on learning to K-12 teachers and students, as part of its integrated K-16 engineering program. See its extensive K-12 curricula at *TeachEngineering.org*.



The ITL Program won the **2005-06 Diversity Service Recognition Award** from the CU-Boulder Chancellor's Advisory Committee on Minority Affairs. ITL was selected for its commitment to creating a more diverse student population at CU-Boulder and for enriching the exposure of K-12 students to engineering, reaching out in particular to students of color, young women, and first-generation college-bound students.

"Scientists investigate what is; they discover new knowledge by peering into the unknown...
Engineers create what has not been; they make things that have never existed before..."

— Joe Bordogna, Deputy Director,
National Science Foundation



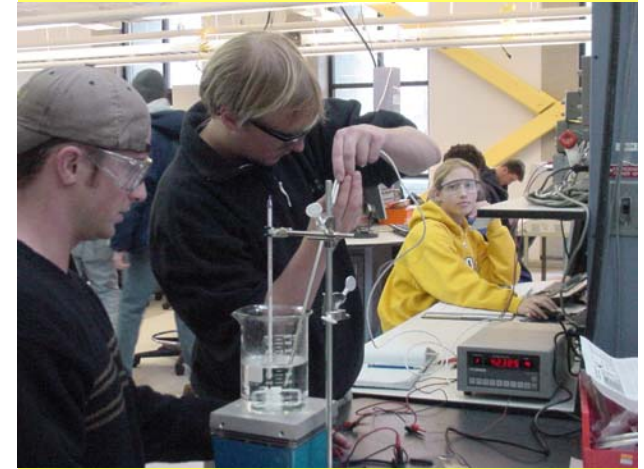
Integrated Teaching & Learning Program and Laboratory

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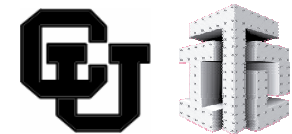
Visit the ITL website for more information:

<http://itll.colorado.edu>

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*"...one of the finer
teaching environments
on the planet."*

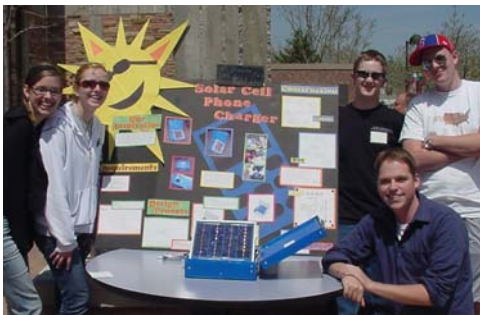
— Hewlett-Packard
Engineering Educator Newsletter, Fall '97

Creating Tomorrow's Engineers

The Integrated Teaching and Learning Program at CU-Boulder is a nationally-recognized engineering education leader. The Program was named one of three finalists for Boeing's *Outstanding Educator Award* in 1996 and 1997. In



2000, it received the inaugural *Recognition Award* from the Corporate and Foundation Alliance, a group of 35 engineering and technology corporations and foundations working with the National Science Foundation to recognize the country's top undergraduate science, math, engineering and technology educational programs.



Using inter-disciplinary, hands-on approaches and incorporating leading-edge



technology, engineering students at CU-Boulder gain the understanding and confidence to succeed. The Program reflects the contemporary world of professional engineering by

supporting students, working in teams on real-world projects, to learn the open-ended problem-solving skills critical to their career paths.

Program components include a first-year design and build course, sophomore- and junior-level experimental



hands-on learning courses, an invention and innovation course, design expos, and senior design projects.



The ITL Laboratory is unlike any other educational facility in the world. Its curriculum-driven design supports a variety of learning styles and features first-year design studios, an active learning center, a

computer network integrating all experimental equipment throughout two large, open laboratory plazas, fabrication "shacks," group work areas, and student-centered, technology-rich electronics and manufacturing centers.

The ITL Laboratory itself is a teaching tool with exposed engineering systems — described in 11 interpretive tour signs. A collection of interactive exhibits and kinetic sculptures capture the interest of budding engineers of all ages. Annually, thousands of K-12 students and teachers visit the ITL Laboratory, many to participate in hands-on, ears-on and minds-on K-12 engineering camps, events and workshops.



Colorado
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