The CARE (Center for Academic Resources in Engineering) Program at Illinois

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Overview
The Grainger Engineering Library Information Center, in conjunction with the College of Engineering (COE) has established the CARE (Center for Academic Resources in Engineering) program at the University of Illinois at Urbana-Champaign Library. CARE is an academic learning center that targets the needs of first- and second-year Engineering students at Illinois. CARE uses most of the fourth floor of Grainger Engineering Library and provides individual and group study space, with co-located programs such as peer mentoring, tutoring, study groups, exam reviews, teaching assistant (TA) and faculty office hours, and workshops.

Objectives
CARE is designed to enhance the student academic experience in a variety of ways and to better integrate the Grainger Engineering Library into the day-to-day lives of engineering students. The overarching goal is to increase engineering student retention rates by providing enhanced student services, including increased contact with TAs, focused instructional assistance, advanced collaborative resources and facilities, and better integration with a variety of Grainger Engineering Library services. To this end, a study of security gate counts and visual head counts was performed to identify any measurable impact on library usage and services since CARE was established in the Fall semester of 2011.

Library Space Repurposed
To provide space in the building for CARE to offer services, the Grainger Engineering Library repurposed 3966 square feet of room space including 14 reservable group study rooms, 2 large instructional rooms, and an office for the CARE Program Coordinator.

The total seating capacity for the CARE area of the fourth floor is 472 with an additional 154 seats available on the east wing for overflow.

Program Services
CARE offers a multitude of programs, workshops, and tutoring services to students. Approximately 5000 students have participated in over 2142 tutoring sessions, 2452 hours of tutoring and peer advising, and 92 exam review sessions.

The Grainger Engineering Library, Center for Writing Studies, Counseling Center, Engineering Career Services (ECS), and McKinley Health Center are just a few of the campus units that have worked with CARE to provide over 80 workshops. These workshops are offered each semester and cover such topics as library instruction/tours, study skills, effective planning, balancing school and family, stress management, and resume reviews.

Impact on Library Usage
Grainger Engineering Library staff track patron visits by recording security gate counts and performing visual head counts periodically throughout the day.

Security Gate Counts
There has been an overall increase in total building patron visits between the academic years (AY) 2009-10 (the year before CARE was established) and 2012-13.

Visual Head Counts
There has been an overall increase in the number of patrons utilizing the CARE space. There was an increase of 12.2% between Fall 2011 and Fall 2012 and 5.04% between Fall 2012 and Fall 2013.

Project Cost
CARE was established with an initial infusion of $281k for computing equipment, projection equipment, furniture, digital signage, and collaboration equipment.

The project was funded with: $65K from the campus Student Library/IT Fee for collaborative equipment, projector and screen equipment, and furniture; $31K from the campus Student Library/IT Fee for digital signage; $60K from the College of Engineering Student Fee for engineering workstations and approximately $125K of foundation money from the College of Engineering.

Collaboration Resources
CARE staff schedule students and TAs into four group study rooms with special collaboration monitors, two instructional rooms, and a large presentation area in the fourth floor west gallery. Over 4,633 reservations were made for CARE groups into these seven areas between August 2012 and December 2013.

Students have access to 51 dual-monitor Engineering Workstation computers (requiring a special College of Engineering login) in the CARE area. The fourth floor is also covered by a building-wide wireless network.

Retention and Conclusion
From the 2011 cohort of first-year Engineering students, 91% continued on to their 2nd year, an increase of 4% from the previous three cohort years which saw 87% continuing to their 2nd year. The increase in the retention rate and library usage is not solely due to CARE programs but anecdotal evidence points to the success of CARE in improving the numerous aspects of the student experience for engineering students at the University of Illinois at Urbana-Champaign.