

Strategies for Increasing Student Success & Retention

<http://bit.ly/studentsuccessstrategies>

Strategy (and examples of universities using it)	Description	Potential Benefits	Potential Costs
Evidence-based Course Redesign (Purdue, U. Colorado & UBC, UCSD, UNM)	Faculty go through training and redesign their course using evidence-based teaching techniques such as Peer Instruction or Inquiry Based Learning .	Reduce DWF rates by 20% to 50% (ref1 , ref2 , ref3), increase graduation rates (ref).	Money for faculty incentives
Math for Engineers Course (Wright State, Ohio State, and other universities)	Show students how the math they will learn is used in engineering contexts. See video , course materials , and more info .	Reduce DWF rates by 30-60% for engineering students who do not place in calculus 1 (ref)	Money for lab equipment, student assistants
Active Learning Classrooms / SCALE-UP (Minnesota, NCSU)	Create special classrooms designed for active and collaborative learning. More info .	SCALE-UP showed 2-3X reduction in rate of failure (ref)	Money for furniture, technology, faculty incentives
Redesign freshmen college success courses to focus on learning how to learn (OSU, UNCO, others)	Teaching students how learning works, study skills, time management, metacognitive skills, etc. See article , textbook , and another textbook .	30% to 45% increase in graduation rates (ref1 , ref2)	Money for instructors, peer mentors, advisors
Certified training programs for tutors, learning assistants, advisors, peer mentors, teaching assistants (USF, Colorado, ...)	There are certified training programs for tutors (CRLA), developmental programs (NADE), grad student teaching assistants (CIRTL), undergraduate learning assistants , peer mentors , advisors (NACADA),...	Increased use & satisfaction with tutoring center, increased graduation rates (ref), GPAs (ref)	Cost of training certification program, money for tutors, advisors, TAs
Course-based Undergraduate Research Experiences	Incorporating research experiences into courses. More info .	25% increase in graduation rates (ref), improved scientific thinking (ref)	Money for faculty incentives

Supplemental Instruction (UMKC)	Supplemental class periods to aid struggling students in gateway courses. More info.	Increase pass rates & retention in gateway courses (some research articles)	Money for supplemental instructors
Online remedial instruction & placement (Clemson)	ALEKS provides online adaptive math instruction & placement exams. Meant to supplement instruction.	15% to 25% increase in pass rates in math (ref1 , ref2)	Cost of ALEKS or other online remedial program
Proactive advising, behavioral nudges, faculty advising (Georgia State and others)	Deliberate interventions with students having difficulties. Proactive advising . Behavioral nudges and reminders for students. Instructors meeting with students who do poorly on the first exam. Teaching students how to learn.	Increase yearly retention 7% to 14% (ref1 , ref2). 32% increase in exam scores (ref).	Optional cost of advising support software .
Early alert system	Alert when students are struggling academically. See this list of early alert systems .	Potentially 10% increase in retention (ref)	Cost of alert system
Required new faculty training	Required training for new faculty on effective teaching strategies. See this article .	Improved teaching, self-efficacy (ref1 , ref2)	Money for faculty incentives
Student living & learning communities (UMBC , Ball State , UW , UCF)	Students room in the same hall and take classes together in a themed community. See this article .	10-43% increase in retention (ref1 , ref2), improved GPA, better 1st year experience (ref)	Administrative costs
Writing Across the Curriculum (WAC) (half U.S. universities have a WAC program)	Teaching writing skills in context by incorporating it in courses outside traditional writing courses. More info.	30% increase in first to second year retention rate (ref)	Money for faculty incentives
Spatial Visualization Course	Teaching students visualization skills important for STEM, aviation, other areas	20-30% increase in female student retention (ref)	Materials for course