

Strengthening 4-Year Undergraduate Student Success with Bridge Programs

What is a Bridge Program?

A bridge program is a structured transition experience designed to help students successfully move from either high school or a two-year institution to a four-year institution.

Bridge programs typically:

- Occur during the summer before transfer (or in the first semester)
- Focus on academic preparation, campus navigation, and community-building
- Strengthen students' confidence, belonging, and self-efficacy
- Clarify expectations of upper-division coursework

They are particularly effective for first-generation students, adult learners, and students from historically underrepresented backgrounds.

Why Offer a Bridge Program for Transfer Students?

Even high-performing community/two-year college students may experience a “transfer shock” during their first semester at a four-year institution. Transfer students often face unique challenges, including:

- Differences in academic expectations and instructional style
- Credit transfer confusion or sequencing gaps
- Navigating a larger campus culture
- Entering established peer networks midstream
- Limited time to build relationships with faculty and advisors

Why Offer a Bridge Program for High School Students?

Even strong high school students can experience “summer melt” or first-semester adjustment challenges. High school students entering college can often face significant academic and social transitions, including:

- Increased academic rigor and independence
 - Less structured learning environments
 - Greater expectations for time management and self-advocacy
 - Navigating financial aid, registration, and campus systems independently
 - Adjusting to a new social and cultural environment
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What Bridge Programs Can Offer

By proactively supporting students before or during their first term on campus, institutions can build early momentum, reduce attrition, and create a stronger foundation for long-term academic success.

Well-designed bridge programs help reduce these risks and increase:

- First-year GPA
- Fall-to-spring retention/Persistence to the second year
- On-time credit accumulation/graduation
- Confidence in navigating campus systems
- Sense of belonging and connection to campus

Bridge programs can also demystify the institution’s (or department’s) expectations by making implicit norms explicit—such as how to communicate with professors, access support services, manage coursework, and balance academic and personal responsibilities.

Core Elements of Effective Bridge Programs

Successful bridge programs vary in format (2 weeks to 8 weeks; in-person or hybrid), but research and practice point to several key components:

1. Academic Readiness

- Upper-division study strategies
- Discipline-specific refreshers
- Writing and research expectations
- Faculty-led mini-courses or seminars

2. Advising & Pathway Clarity

- Degree audit review
- Course sequencing guidance
- Major exploration and career mapping
- Early connection to departmental advisors

3. Community & Belonging

- Cohort model
- Peer mentors (former transfer students)
- Faculty meet-and-greets
- Networking with student organizations

4. Systems Navigation

- Financial aid and scholarship support
- Learning management system orientation
- Campus resource introduction
- Internship and research opportunity awareness

5. Equity-Focused Design

- Asset-based framing of transfer students
- Explicit attention to first-generation experiences
- Culturally responsive pedagogy
- Structured faculty engagement

Potential Bridge Program Formats:

Summer Intensive (2–6 weeks) | Short-Term Bootcamp (1–2 weeks) | First-Semester Linked Course & Seminar | Hybrid Program (Online prep & On-campus experience) | Major-Specific Programs (e.g., CS, STEM, Business)

In CS-specific bridge programs, pair-programming, peer-led collaborative learning environments, and learner-centered design and research programs have all been successful in attracting and retaining non-traditional students in CS programs. Research

also suggests that a curriculum with an emphasis on creating games or manipulating and creating media can aid in engaging and retaining students.

Measuring Impact

Measuring the impact of a bridge program is essential to determine whether it meaningfully improves student outcomes and narrows equity gaps. Clear metrics allow institutions to assess effectiveness and make data-informed refinements. They also strengthen institutional support, demonstrate return on investment, and help sustain funding. Ongoing evaluation ensures the program evolves in response to student needs rather than remaining static. Institutions might want to track participating students’:

- First-term GPA
 - Credit accumulation
 - Year-to-year retention
 - Graduation rates
 - Student sense-of-belonging (via surveys or focus groups)
 - Participation in high-impact practices (internships, research)
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Examples of Effective Bridge Programs

Below are examples of established and effective bridge programs that focus on transfer or STEM transition success:

[University of California Santa Barbara – Transfer Summer Experience](#): Offers summer programming, orientation, and academic preparation specifically for transfer students.

[UCLA – Summer Pathways for Transfers](#): Provides academic preparation, counseling, and community-building for incoming transfer students.

[University of Central Florida – DirectConnect to UCF](#): Guarantees admission pathways and provides transition support from a structured partnership with state colleges.

[Purdue University – CS Bridge Program](#): introduces students to basic computer science and programming concepts at a comfortable pace in a fun and informal environment. This

program is structured for incoming Computer Science, Data Science, and Artificial Intelligence freshmen with little or no programming experience.

Bowling Green State University – AIMS (Academic Investment in Math & Science):

Offers academic preparation and cohort support as a nationally recognized STEM bridge program.

University of Washington – STARS Program: Supports transfer students in engineering through mentoring and transition programming.

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