University of Idaho

Requesting Campus Feedback:

Improving Student Success Via Revised Curricula and Instruction

To strengthen U of I students' outcomes, President Green has charged a Step-Up Completion: Collaboration, Evidence, Synergies, & Support (SUCCESS) Team to propose initiatives for funding likely to **increase our current 61% six-year graduation rate to 77%**, matching the current average at Research I institutions. Because U of I is enrolling increasing numbers of first-generation and other students from historically under-represented groups, President Green's charge focuses on using evidence-based approaches shown to improve graduation rates (Bradley, 7.14.21; The Equity/ Excellence Imperative: A 2030 Blueprint for Undergraduate Education at U.S. Research Universities). To ensure that the final proposal is informed by perspectives from across campus, the SUCCESS Team invites feedback from campus groups over the next few months.

Specifically, the team is charged to build on U of I's existing Strategic Enrollment Plan (SEP) by focusing on evidence-based revisions to curricula and instruction shown to deepen learning and improve academic achievement. The team will propose three broad curricular and instructional student

success initiatives to President Green and Provost Lawrence by mid-May.

The SUCCESS Team invites feedback from campus groups, in two stages.

In **stage 1** *(January/early February)*, campus groups are asked to provide feedback on six possible initiatives, each informed by evidence from other institutions. Using campus feedback, the team will narrow to three initiatives and develop possible approaches to pursue each.

In **stage 2** *(late February/early March)*, all members of campus will be asked for feedback on the possible approaches.

The Team has worked hard to research and provide references for your consideration. **Your feedback is critical to success, and we appreciate your input** on this important project.

To provide stage 1 feedback, please review the descriptions of **each of the six possible initiative topics below**, then click on this **Feedback Form**, selecting which of the initiatives you are responding to. Note you can re-enter to submit for each initiative. You'll be asked for your thoughts in response to the following questions for each initiative:

1. ***What existing relevant strengths at UI could serve as a foundation for this initiative?***
   On a scale of 1 to 10 (1 low, 10 high), how extensive and well established are UI's existing relevant strengths?

2. ***What improvements in students' learning, preparation for upper-division courses, or other outcomes would you expect to result if UI pursued this initiative?***
   On a scale of 1 to 10 (1 low, 10 high), how important is it to achieve these improvements?

3. ***What is potentially interesting or attractive about this initiative?***
   On a scale of 1 to 10 (1 low, 10 high), how much would you like to see UI pursue this initiative?

4. ***What concerns do you have about this initiative and its implementation?***

Revise General Education Curriculum

General education prepares students to connect ideas across disciplines, engage usefully with differing views, recognize how knowledge claims differ across disciplines, adapt to changing work environments, and participate in civic life. Revised general education curricula often streamline general education requirements, use broad themes across disciplines, and scaffold courses' integration with major requirements across four years.

Research: shows (a) integrating and applying knowledge deepens understanding[1] and (b) integrated curricula and learning experiences promote academic success[2].

Example: Arizona's General Education Curriculum

Initial Ideas Generated by the SUCCESS Team:

1. Reconsider when and how courses are offered to support students' timely completion.
2. Develop an introduction-to-campus module.
3. Redesign curricula to engage detached students.
4. Add a civic participation requirement.

Expand & Enhance Common Learning Experiences

Common learning experiences, such as first-year seminars and learning communities, offer meaningful curricular and cocurricular experiences to enhance student learning, often using broad themes and varied curricular and co-curricular choices.[3]

Research: shows common learning experiences (a) improve student success and GPA; (b) are consistently linked to higher retention and graduation rates; and (c) positively impact racially/ethnically minoritized, first-generation, conditionally admitted, and undeclared students[4-10].

Initial Ideas Generated by the SUCCESS Team:

1. Bridge program to prepare students for a FYE.
2. Various FYE opportunities to introduce general education.
3. Links from FYE to sophomore-, junior-, and senior-year experiences.
4. A culminating experience that builds on students' earlier common intellectual experiences.
5. Support for core cognitive and non-cognitive skills.

Example: Arizona State's highly rated First-Year Experience (FYE) Program

Increase Use of Evidence-Based Teaching Practices

Evidence-based teaching practices, such as active learning, promote higher order thinking and self-directed learning through discussion, case studies, group work, problem solving, writing, sketching, and other instructor-guided activities.

Research: A meta-analysis of 255 studies of STEM courses linked active learning to +6% average exam scores and +12 percentage points in course success rates, with traditional lecture students 1.5 times more likely to fail[11]. Substantial research has linked success in foundational courses to increases in both retention and graduation rates[12-17, 22-23].

Initial Ideas Generated by the SUCCESS Team:

1. Revise promotion and tenure criteria
2. Establish evidence-based, inclusive teaching practices; offer leadership, elevate expertise, and emphasize research on learning & instruction.
3. Ensure faculty have resources needed to pursue evidence-based teaching practices.

Example: Home • Active Learning and Inductive Teaching • Iowa State University (iastate.edu)

Provide More Real-World Learning Opportunities Earlier

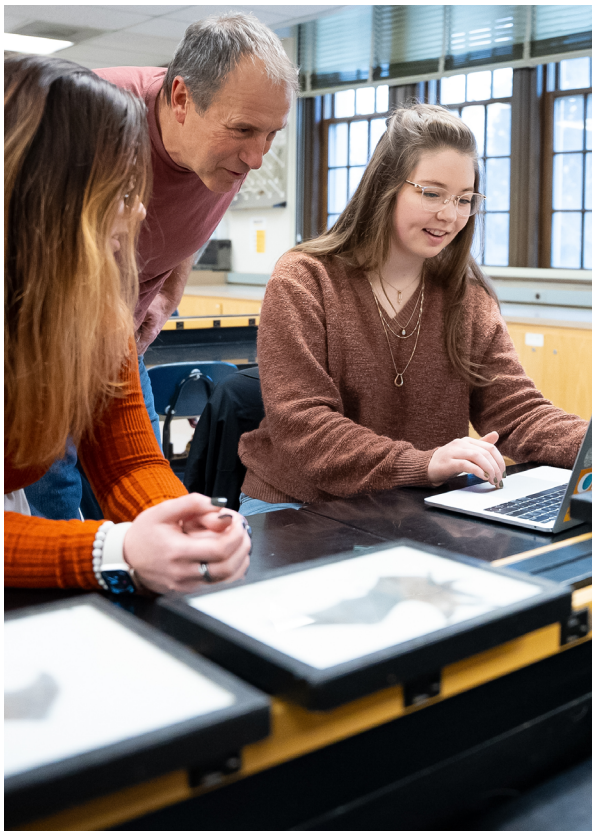
Undergraduate (UG) research, internships, community-based learning, and other real-world learning experiences are linked to increased learning, graduation rates, and post-graduation success.

Research: UG research has been linked to +4% to +10% in overall graduation rates and +13% STEM degree completion, with particular benefits for racially/ethnically minoritized and other historically under-represented backgrounds[18-21].

Initial Ideas Generated by the SUCCESS Team:

1. Add co-op experiences, problem solving components, career experiences, undergraduate research, and capstone courses or experiences.
2. Strengthen industry connections.
3. Engage community members as co-creators of learning and scholarship.

Example: Echegoyan et al (2019) showed a strong association between completing UTEP's Freshman Year Research Intensive Sequence and long-term retention for the 1,652 students they studied, 2015-2017 (~63% female, ~86% Hispanic).



Streamline Degree Pathways

The open source **Curricular Analytics** *toolkit enables faculty to quantify curricular complexity, identify opportunities to streamline curricula, and create degree plans that best enable students to achieve timely degree completion. For example, some universities using Curricular Analytics have revised prerequisites or integrated just-in-time modules on key topics, e.g., building instruction in differential equations into engineering courses that require this knowledge.*

Research: Preliminary data from a **$1.99M Ascendium Foundation grant** supporting the use of Curricular Analytics at 30 R1 and R2 institutions suggest that curricular complexity varies by discipline and that, while some complexity is needed to sequence learning, higher complexity typically correlates with lower graduation rates and longer time- to-degree for those who do graduate, with greater impacts on first-generation, Pell-eligible, white, and some minoritized students.

Initial Ideas Generated by the SUCCESS Team:

1. Examine evidence about where students get slowed or stopped, e.g., when courses needed to progress are offered too infrequently or with too few seats.
2. Accelerate the process and smooth the pathway for transfer students; enter all degree plans into VandalWeb.
3. Consider upgrading our college policy manuals for students. Consider including information on commonly used course substitutions.
4. Consider a “one-stop shop” for students, passports to success, and a humanistic/ not mechanistic approach to genuinely supporting our students throughout their academic career.

Example: The Curricular Analytics Project is part of a larger trend to use data to create more equitable curricular pathways, e.g., **at UT San Antonio**.

Better Support Historically Under-represented Students

Provide intentional support for all students, especially first-generation students, international students, and others from historically under-represented groups.

Research: Founded in 2004, Excelencia in Education tracks degree completion goals and measures of progress for Latino and all students, replicates and expands practices shown to improve academic achievement, and supports institutions committed to serving Latino students.

Example: *Excelencia's* Growing What Works Database features 200+ programs supporting Latino students' academic success. Similarly, the Center for First-Generation Student Success supports colleges and universities to scale programs shown to effectively support first-generation (first-gen) students by providing data and professional development opportunities, promoting research on first-gen persistence and completion, and building a national network. Typically, educational approaches that benefit first-gen and racially/ethnically minoritized students better support *all* students.

Initial Ideas Generated by the SUCCESS Team:

1. Expand and/or extend the work of UI's Office of Equity and Diversity and its existing programs.
2. Equip faculty and staff to work effectively with students from first-generation, low-income, and/or high-trauma backgrounds, as well as those from other under-represented groups.
3. Prepare students to request support, course substitutions, etc., when needed and appropriate.
4. Develop online modules and/or other resources to support students who need to brush up on foundational skills.
5. Redesign campus spaces to promote student success.
6. Consider seeking a first-generation designation.
7. Support faculty in designing high-quality courses across delivery modes (face-to-face, online, hybrid).

References

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3 High-Impact Practices | AAC&U (aacu.org)

4 Jamelske, 2009

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7 Vaughan et al., 2014b
Vaughan, A., Parra, J., Lalonde, T. "First-Generation College Student Achievement and the First-Year Seminar: A Quasi-Experimental Design." Journal of the First-Year Experience & Students in Transition. Vol. 26, No. 2, Fall, 2014, pgs. 51-67(17).

8 Miller & Lesik, 2014

9 Vaughan et al., 2019

10 Pickenpaugh, Yoast, Baker, & Vaughan, 2021

11 Freeman et al. 2014

12 Koch & Pistilli, 2015

13 Cabrera, Burkum, & LaNasa, 2005
Cabrera, Alberto F., et al. "Pathways to a four-year degree." College student retention: Formula for student success 155214 (2005).

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