This case study is part of an eight-part series under APLU’s Guided Pathways for 4-Year Institutions model.

To view the model and other case studies, visit www.aplu.org/guidedpathways
4-Year Guided Pathways Case Study: TRANSFERmation in STEM Pathways (Vertical Transfers)

Introduction

For 80% of students who enroll each year in a community college, the postsecondary journey begins with the aspiration to earn a bachelor’s degree. But only 25% make the leap to a 4-year institution within five years. Another 20% choose to complete a community college credential instead, according to NCES and National Student Clearinghouse.

Miami Dade College (MDC) and Florida International University (FIU) have developed a clear vertical transfer pathway model to combat these issues. Eighty percent of MDC students transfer to FIU - many choosing a STEM degree pathway. Over 8,000 students entering their first semester at MDC say they are interested in pursuing a degree in STEM. After three years, about 2,100 of those students earn an Associate’s degree. Most transfer to FIU and of those, 53% graduate within four years.

Description of Strategy

Working with the Education Design Lab (Lab), MDC and FIU learned that a seamless transfer pathway in STEM would require more than new course sequencing. While many STEM transfer students graduate from MDC underprepared to successfully complete FIU’s rigorous degree program, an in-depth look at the data showed other barriers including the length of time to completion, excess credits upon completion, inconsistent advising and monitoring, and profound student distrust of information. Interviews indicated that the STEM transfer pathway was confusing for students, advisors, faculty, and staff.

Designing a successful STEM pathway for transfer students required the team to validate the role of students as peer advisors and rebuild trust. Thus TRANSFERmation was born, an interactive online roadmap for STEM transfer student success. The interactive tool guide students on their journey, starting on the day they begin at MDC and charting all the major milestones to the day they graduate from FIU. Peers serve as student ambassadors of the tool. The online interactive tool could be scaled to other transfer partnerships in Florida. Bringing TRANSFERmation to life required external resources and support from external stakeholders, thus the team reached out to a private foundation, leveraging learnings from the design year to make the case for investment, and has been awarded funding to build the interactive tool.
A specific example under the MDC+FIU STEM Pathway includes a Biology course framework. To build a new Biology course framework for transfer students, MDC and FIU had to overcome was how to reduce both the time to complete the degree and the number of excess credits. The state of Florida charges students a penalty for excess credits. The Excess Credit Hour Surcharge, which is meant to incentivize students to complete their bachelor’s degree quickly, charges a 100% surcharge of the tuition rate for every credit hour taken in excess of 110% of their program requirements.

STEM transfer students from MDC can pursue eight different curriculum paths toward a Biology major at FIU, where the credit limit is 120 credits. These paths vary anywhere from 125 to 136 credit hours for completion. No matter which path a student takes, they will be over the FIU credit limit, and some paths will put them over the 110% threshold. The longest path includes 72 hours at MDC, 12 of which will not count towards FIU’s degree requirement. Getting to 120 credits will require full academic approval. Unlocking this problem has the potential to solve multiple challenges, including other STEM degree pathways and systemic barriers affecting transfer student success. For MDC and FIU, this is now their task: How can the institutions reduce time to degree through TRANSFERmation, and use these pathways to engage faculty and advocate for systemic change?

Relation to the Model

Through on-ramps recruitment, entry, progress, transition (KEY FOR PATHWAYS) and completion, MDC + FIU’s STEM Pathway are specific to the trust and culture built between MDC + FIU.

At the on-ramps recruitment and entry stages of the model, MDC opted to redesign the intake process to target the cohort of 9,000 students entering MDC directly from high school in fall 2012. The changes the MDC made to help students through the on-ramps recruitment and entry stages include:

- eliminating late registration;
- augmenting the number and scope of “mini-term” courses for students who missed registration deadlines;
- establishing uniform, mandatory orientations for new students that incorporated nonacademic diagnostic assessments and course registration;
- assigning advisors to incoming students;
- and, offering summer “boot camps” for students requiring remediation.

Further, MDC was intentional in implementing pre-college advising, which begins at the high school level and continues until the mandatory orientation, when newly matriculated students are assigned an advisor. While the new system is designed to serve all incoming students, including nontraditional students who have been out of school for some time, the college focused their early implementation on incoming high school students.

Advisors reached out to 9,000 new MDC students to help them develop individual academic plans. Throughout the semester, advisors connected with students with high-risk profiles, publicized activities designed to help students become more engaged in the college and made themselves available for follow-up questions, support, and engagement, which lead through the progress and ultimate completion of their AA or AS degrees prior to transferring to FIU.