Completing Gateway Courses and Entering Programs of Study

Washington, DC
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Too many students start college in remediation.

60%
Too few remedial students ever graduate.

1 in 10
Few Ever Get to Gateway

70% of students placed into remediation fail to enroll in a gateway math course in two academic years.
Student attrition is at the heart of the matter.
Remediation: The effect of attrition.

Students assigned 3 or more semesters of math remediation.

- Completed 1st semester of remediation.
  - **Enrolled and completed**
  - **Did not complete**
  - **Did not enroll or stopped enrolling**
  - **LOST**

- Completed 2nd semester of remediation.
  - **Enrolled and completed**
  - **Did not complete**
  - **Did not enroll or stopped enrolling**
  - **LOST**

- Completed 3rd semester of remediation.
  - **Enrolled and completed**
  - **Did not complete**
  - **Did not enroll or stopped enrolling**
  - **LOST**

- Passed gateway course.
  - **Enrolled and completed**
  - **Did not complete**
  - **Did not enroll or stopped enrolling**
  - **LOST**

**KNOW THIS** The remediation system is broken. More students quit than fail.

Guiding Objective

Students complete gateway courses and enter programs of study in their first academic year
A Systemic Approach

Corequisite Remediation & Guided Pathways to Success

Into a System for Guiding Students into and through Programs of Study
COREQUISITE REMEDIATION
One Semester Redesigned Gateway

Gateway

Mandatory Tutoring

Extra Time

- 45 minutes after class
- Additional class periods

Sequenced

- Paired proctored labs
- 5 weeks prep plus 10 weeks gateway content
<table>
<thead>
<tr>
<th>Institution</th>
<th>Subject</th>
<th>Traditional Model</th>
<th>Corequisite Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC of Baltimore County</td>
<td>English</td>
<td>33%</td>
<td>74%</td>
</tr>
<tr>
<td>Accelerated Learning Model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austin Peay State University</td>
<td>English</td>
<td>49%</td>
<td>70%</td>
</tr>
<tr>
<td>University Structured Assistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantitative Reasoning</td>
<td>11%</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
<td>8%</td>
<td>65%</td>
</tr>
</tbody>
</table>
One-Year Corequisite

Semester 1

Gateway Content
Academic Support
College Success
Skills

Semester 2

Quantitative Reasoning
Statistics
STEM
One-Year Corequisite Results

Carnegie Statway
Success in gateway math within one academic year

Traditional Model | Statway
---|---
5.9% | 51.0%
Mathematics must be aligned with programs of study.
College Algebra is the last mathematics course many students take.

Data indicate that only one in ten College Algebra students go on to take a full-length calculus sequence.

- Mathematical Association of America, 2002
1. College Algebra is the default college-level course.

2. College placement exams are designed to determine placement in College Algebra.

3. Dev Ed courses are designed to prepare students for College Algebra.
“College Algebra was designed explicitly to meet the needs of students who are preparing to take Precalculus and Calculus.”
College Algebra’s Only Purpose: Preparation for Calculus
STATISTICS PATHWAY is designed for students seeking a college-level statistics course as part of their general education requirement for majors in fields including:

- Nursing
- Social Work
- Criminal Justice

QUANTITATIVE REASONING PATHWAY is designed for students pursuing a field of study in which general education math is a requirement. These fields include majors in:

- Communications
- Graphic Design
- Paralegal

STEM-PREP PATHWAY is designed for students seeking a STEM or mathematics-intensive major in fields including:

- Petroleum Engineering
- Computer Science
- Chemistry
In Math Pathways Differentiated Gateway Courses are:

- Articulated to Program of Study Requirements
- Transferable into Programs of Study at Receiving Institutions
- Designed to be delivered with a Corequisite for Underprepared Students
- A Key Component of Pre-Major Advising
  - Part of a Meta-Major of like Academic Programs
  - Outlined in Academic Degree Maps
  - Part of a First Semester Default Schedule
Placement into gateway courses and programs of study
Current Model Enrolls Most Students into Remediation

Student Placement Data

Remediation

70%

Gateway

30%
New Model Enrolls Most in College

Student Placement Data

Percent of Students

Test Prep or Technical Certificate: 10%
Gateway Course with Corequisite Support: 60%
Gateway: 30%
Guided Pathways to Success (GPS)
GPS: Essential Components

1. Default Pathways
2. Informed Choice
3. Meta-Majors
4. Academic Maps
5. Critical Path Courses
6. Intrusive Advising
A Model Pathway

Advise and Assess

Choose Meta-major
- Social Sciences
- STEM
- Humanities

Gateway Math in 1st year
- Coreq
  - Stats
- Coreq
  - College Algebra
- Coreq
  - Quant Reasoning

Choose Major
- Major
- Major
- Major
**Math Pathways With Corequisite Remediation Increases Gateway Success**

*Ivy Tech Community College*
- Only 9% of students referred to math remediation completed the college math course in **three semesters**.
- Now over **50%** complete in **one semester**.

*Austin Peay State University*
- Only 10% passed gateway math in **three semesters**.
- Now between **65% and 78%** complete in **one semester**.
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