Paris Junior College

Implementing NMP at Scale

Redesigning Developmental Education as the Onramp to Programs of Study

Developmental Math at PJC Pre-NMP: 3 levels

- LSKL 0306 – Skill Development in Math
- MATH 0300 – Elementary Algebra
- MATH 0301 – Intermediate Algebra

College Level Course Options Pre-NMP:

MATH 1314 College Algebra

MATH 1324 Mathematics for Business & Economical Analysis I

MATH 1342 Statistics (very minimal enrollment enrollment)

Success & Completion Rate Concerns

- Less that 20% of PJC students were STEM majors.
- Only about one-third of PJC students were in algebra intensive degree plans.

But, College Algebra was the "safest" college level math course for students to take for transfer purposes.

It became the default option if students did not know with certainty their major AND their university destination.

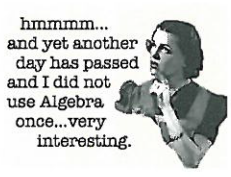
Our nearest feeder university did not have a lower level Statistics course.... Options were limited.

Algebra – the new Latin?

- At this time, College Algebra was our #1 gatekeeper course and was the biggest obstacle for many students to achieve their educational goals.
- UT Dana Center announced a meeting to introduce the New Mathways Project (NMP).
- Next obstacle was getting buy-in:
  - First from our math faculty – "Everyone needs college algebra"
  - Then our advisors – "Its safer to just take college algebra"
  - Even from our students – "Are you sure I don't need to take college algebra?"

For the NMP to be successful, it was imperative to have Math faculty buy-in. It was not an easy sell.....

- Not every student needs algebraic reasoning in their degree plan



Had to get math faculty to recognize most of their students were not math majors and did not like math as much as they did .....(duh?)

Never try to teach a pig to sing.....

It wastes your time and it annoys the pig.

Mark Twain

The Transition to the New Mathways Project

- LSKL 0306 was eliminated (ABE option does exist but used minimally)
- MATH 0400 – Foundations of Mathematical Reasoning
- MATH 0401 – Foundations of Algebraic Reasoning

NMP College Level Options

- MATH 1314 – College Algebra (STEM and algebra-intensive pathways)
- MATH 1324 – Mathematics for Business & Economical Analysis I
- MATH 1332 – Contemporary Mathematics – Quantitative Reasoning (non-algebra intensive pathways)
- MATH 1342 – Elementary Statistical Methods

Decided to run a pilot offering the first semester at one of our off-campus centers to get student and faculty feedback. Results were very positive and well received.

- Implemented college-wide the next semester.
- Math faculty helped train advisors and counselors for NMP courses.
- Students that were not "clear-cut placement" were advised of the options and given recommendation based on placement scores and course completions status.

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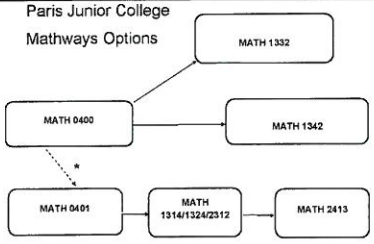
Mathways Options



*Optional – primarily used when requested by the student that feels like they need the "extra" review

The non-algebra intensive NMP pathway courses are taught in a more application-based approach to show those students the need for math in their content area. Homework, quiz & exam problems are based on actual application based examples.

The STEM and algebra-intensive NMP pathway courses are taught in more traditional, theory based manner.

We are now seeing completers through the various math pathways and results are very encouraging.

Changing from 3 levels of developmental math to only 1 (in most cases):

- MATH 1332 – Contemporary Math success rates are running about 10-12% higher than College Algebra success rates were before NMP
- MATH 1342 - Elementary Statistics is averaging 4-5% higher than College Algebra success rates were before NMP
- MATH 1314 - College Algebra success rates have also increased because we are no longer placing students there who do not need the algebraic reasoning.

*Because we are placing students in the appropriate and applicable math pathway to support their degree plan, MATH 1314 - College Algebra is NO LONGER our number one gatekeeper course! (Not sure that is anything to brag about, but the math faculty are very proud of it.)

As we plan for Pathways implementation, one of the first considerations and commitments was to align Mathways with our Pathways (meta-majors).

We feel Pathways is the obvious next step for PJC to improve retention, completion and success rates. We also believe the implementation of Pathways will further increase the success of our Mathways project.