# UW System Math Initiative
# Math Steering Committee meeting

Friday, February 8, 2019

Pyle Center

Madison, WI

UNIVERSITY OF WISCONSIN SYSTEM

# Celebrate success to date

- Agreed on initial gateway math course descriptions and learning outcomes for College Algebra, Quantitative Reasoning, and Statistics.
- Drafted UW Math Gateways Model, which builds on current commonality among UW institutions and proposes additional opportunities for intra-system gateway math transfer.
- Initiated collaboration with the UW Center for Placement Testing for professional development, technical assistance on data-based placement and use of multiple measures for math placement, and to explore the development of a sustainable strategy to update math requirements by major.

# Celebrate success to date con't

- Developed a System Change Framework for Higher Education informed by Year 1 work on the Math Initiative.
- State leadership team application accepted for the Conference Board on Mathematical Sciences Forum on High School to College Mathematics Pathways May 2019.
- Initiated outreach to Wisconsin Technical College System leadership resulting in 2019 meeting to discuss the potential for alignment across the two systems regarding gateway math.

# Meeting objectives

- Assess and understand current gateway math requirements/recommendations for Business, Nursing and Education at UW institutions
- Next steps to examine placement for gateway Statistics and NANS math courses

# Understand current gateway math courses for Business, Nursing and Education

- Review and understand licensing and accreditation requirements for Business, Nursing and Education
- Examine current gateway courses across UW institutions
  - Individual reflection using worksheet
- Discuss questions as a small group

# Education licensing requirements (DPI)

| Old Licensure Categories | New Licensure Categories* |
|---|---|
| Early Childhood to Middle Childhood<br>Birth – Age 11 (Grade 5) | Early Childhood to Middle Childhood<br>Birth – 3rd grade |
| Middle Childhood – Early Adolescent<br>Age 6-12 or 13 (Grades 1 – 8)<br>Minor Required | Middle Childhood – Early Adolescent<br>Grades K – 9<br>No Minor Required |
| Early Adolescent – Adolescent<br>Grades 6 -12 | Early Adolescent – Adolescent<br>Grades 4 -12 |

*Licenses issued under Wis. Admin Code PI 34

# Standards or Content Guidelines (Elem Ed)

- **DPI Licensure Program Content Guidelines (taken from ACEI)***:

Candidates know, understand, and use the major concepts and procedures that define number and operation, algebra, geometry, measurement, and data analysis and probability. In doing so they consistently engage problem solving, reasoning and proof, communication, connections, and representation.

*https://dpi.wi.gov/tepdl/epp/guidelines

# Standards/Recommendations for Preparing Teachers of Mathematics

**MET II***: https://www.cbmsweb.org/archive/MET2/met2.pd f

**AMTE Standards****: https://amte.net/standards

# Business accreditation requirements

- Two main accrediting bodies : AACSB and ACBSP
  - Neither AACSB nor ACBSP appears to mandate particular math courses, but may require a certain *level* of math in business programs
  - UW Schools accredited by AACSB:
    - UWEC
    - UWMSN
    - UWL
    - UWMIL
    - UWO
    - UWPKS
    - UWRF
    - UWW
    - UWSP
  - UWSTO is accredited by ACBSP

# Nursing license criteria

- Accrediting and licensing bodies do not mandate specific types or levels of mathematics

# Questions for consideration

- Initial reactions
  - What do you notice? What surprises you?
- Do the syllabi from other campuses match your gateway course?
  - If so, which campuses match?
- For the syllabi that do not match your course, where is there alignment?
  - Are critical LO missing?
- Follow-up questions/comments for members of your ICT and/or other colleagues from your institution

# Questions for consideration con’t

- Where can you identify a potential convergence of solutions across institutions?
- Which institutions would you include?
  - How close are they?
  - What would need to be added or changed?
- Follow-up questions/comments for colleagues from other institutions
- Follow-up questions/comments for UWSA
- Key takeaways summarized

# Working lunch

Explore whether there are advantages to having a uniform syllabus template for gateway math courses

- If yes, what would you recommend including in the template?

# Placement for NANS and Statistics

- Determine the effectiveness of MFND 465 cutscore for placement into NANS and Stats
  - Compare groups of students in terms of course success
    - On average how do students with MFND scores < 465 do in comparison to students with MFND scores ≥ 465?
  - Data considerations/recommendations
    - Use only true freshmen (< 24 transfer credits) for whom the course was their first math course
      - What about time since placement test?
    - How to define success
      - C- or better vs. B- or better
    - Three years of data
      - Maximize sample size, aids in coverage of the score scale

# Next steps and closing

- Early enrollment in math foundational work
- Begin planning summer site visits with Math Initiative project team and full ICT
- MSC meeting March 14
  - Continue work on Business, Nursing and Education gateway math
  - Follow up on NANS and Statistics placement
- ICT workshop April 18-19 at Madison Concourse
- CBMS forum May 5-7