



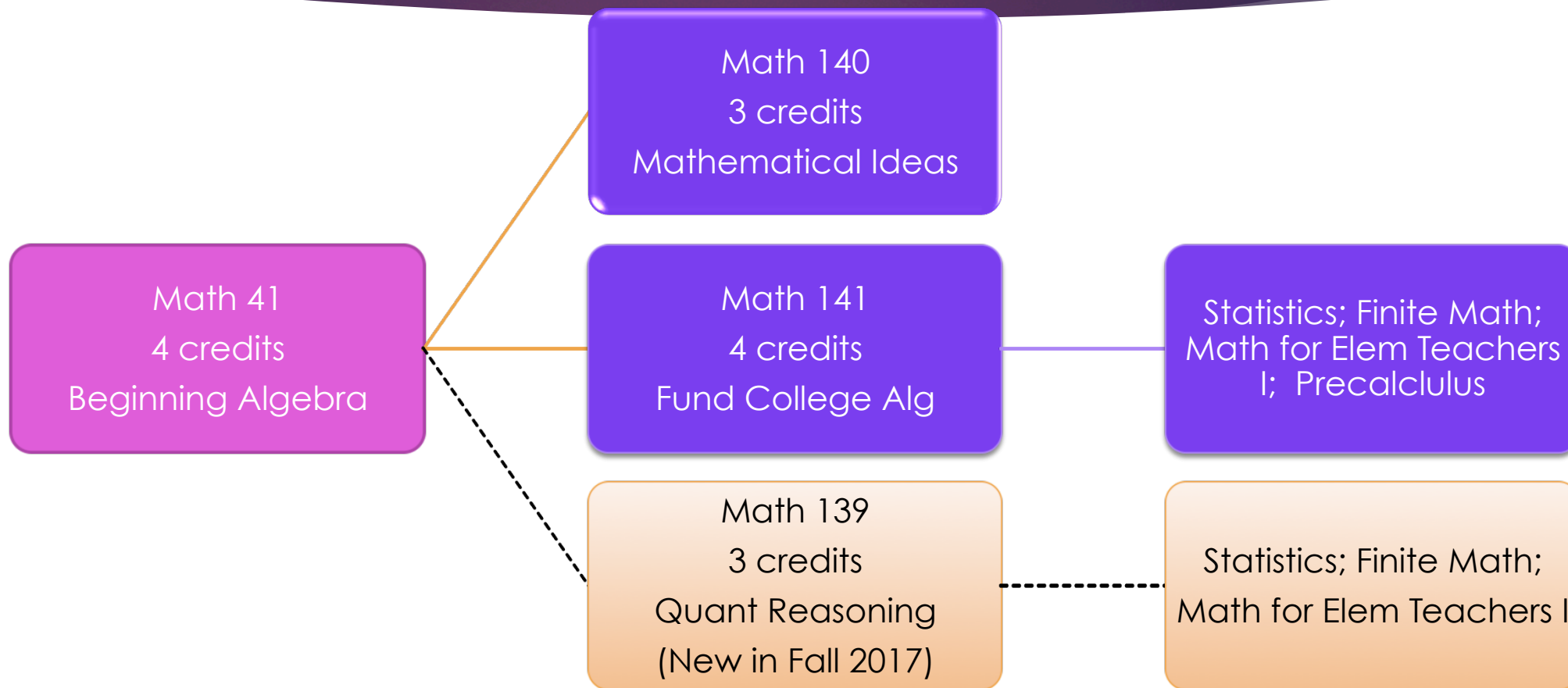
The Moving Up Program:  
*Co-requisite remediation in Math 141*  
– *Fundamentals of College Algebra*

FE EVANGELISTA, UW-WHITEWATER, MATHEMATICS DEPARTMENT CHAIR

# Content

- ▶ Math Pathways at UW-Whitewater
- ▶ Pilot Program in Fall 2015 including program features and results
- ▶ Fall 2016 Revision
- ▶ Fall 2017 Scaling UP
- ▶ Summary, Challenges and Next Steps

# UW-Whitewater Math Pathways



# Pilot Project Funding Fall 2015

## **UW System Developmental Education R&D Grant:**

Implementing a “moving up” strategy through workshop-enhanced credit bearing courses for students placed into developmental Math or English courses

Use of grant funding:

- ▶ Summer 2015 – stipends for instructors to prepare the courses; stipends for department chairs to assist in recruitment and registration, support for data collection & analysis
- ▶ AY 2015 – 2016 – support for additional tutors; stipend for Math instructor

# Eligibility and Recruitment

- ▶ Eligibility: Incoming Freshmen placed into developmental math by UWMPT and Math ACT score of 17 and higher
- ▶ Recruitment: A letter was sent to all eligible students inviting them to sign up for the program. Students registered online. The department chair was available to answer questions.
- ▶ Limited seats: Only two sections of Math 141 (~60 students) so some students unable to join the program.

# Program Features

- ▶ Students enroll in the same section of Math 141 and 1-credit Math 049 Workshop; no specific “workshop day.”
- ▶ Guiding principles:
  - ❑ Maintain the same core assignments (online HW system), quizzes, tests as the regular Math 141 sections.
  - ❑ Focus on students taking an active role in their learning.
  - ❑ Emphasize college success.

# Program Features, etc.

Activities that encourage organization, time on task, metacognitive practices, and use of academic support resources, including:

1. Maintain an organized notebook of homework problems.
2. Develop concept maps for each unit.
3. Log in at least 20 hours in academic support services, such as tutoring, supplemental instruction.
4. Self-evaluation after the first test, and one-on-one consultation with the instructor

## Features of the Program, cont'd

- ▶ Just in-time review and additional time spent on topics.
- ▶ Less lecture and more time in class for problem-solving and presentation.
- ▶ Supplemental Instructor who works closely with the instructor



# Pilot Program Results

DFW rate for Math 141 Moving UP:	37.2%
DFW rate in for Math 141 in Fall 2015:	17.9%
3-year DFW rate of Math 141:	22.1%

Not great, but ...

# Pilot Program Results : Success in Next Math Class

FALL 15 cohort		
Course	Number enrolled	Number C- or better
M143	12	11
M148	1	1
M152	3	2
M141 (repeats)	12	8
TOTAL	28	22 (78%)
		FALL 15
No Math Course		26
Not Enrolled		5

## Percentage of students earning C- or better: 3-year average (Spring semester)

M143 – Finite Math	79.9%
M148 – Math for Elem Teachers I	78%
M152 - Precalculus	72.1%



Observation:

Success depends more on work ethic and persistence rather than mathematical background. But what is an appropriate indicator?

# Fall 2016 vs. Fall 2015

For Fall 2016 cohort, we reviewed HS transcripts of students with Math ACT scores of at least 17, and then invited students with consistent HS math grades to join the program.

	Fall 15		Fall 16	
	Total students	DFW Rate	Total students	DFW Rate
Moving UP	59	37.2%	62	22.5%
All Math 141	1289	17.9%	1329	20.5%

# Success in Next Math Class measured by earning a grade of at least C-

	FALL 16 cohort	
Course	Number enrolled	Number C-or better
M143	26	24
M148	3	2
M152	6	5
M141	11	7
TOTAL	46	38 (82%)
No Math Course	10	
Not Enrolled	4	

## Percentage of students earning C- or better: 3-year average (Spring semester)

M143	79.9%
M148	78%
M152	72.1%

# Fall 2017 – Scaling UP

- ▶ Eligibility: Math ACT of at least 17
- ▶ 4 sections of Math 141 taught as a regular course – 120 students; 2 instructors with 2 sections each
- ▶ Stand-alone Math 049 – 6 sections with 20 students each
- ▶ Math 049 instructor also teaches 2 Math 141 sections, and collaborates closely with the other Math 141 instructor
- ▶ Math 049 contains content support and learning strategies

# Challenges

- ▶ Data shows that there is a group of students who are successful in the program and students who are not successful. The challenge is identifying to which group a student belongs.
- ▶ The program puts more demand on the instructor's time. Currently, class sizes are low and a stipend is provided. Is this sufficient?
- ▶ Recruitment and training of supplemental instructors are essential!
- ▶ Close collaboration between Math 049 and Math 141 instructors.

# Next Steps

- ▶ Analyze Fall 2017 data to determine factors and measures that increase likelihood of success in the program. Possible indicators: Math ACT, scores in UWMPT AALG, HS Math GPA, consistency in HS grades, other?
- ▶ Develop Math 139 Moving Up section(s) for Fall 2018.
- ▶ Explore the possibility of a student moving down to Math 041 within the first month of the semester.