Washington State
Transition Mathematics Project (TMP)

College Readiness Mathematics Standards
A collaborative project of K-12 schools, community and technical colleges and baccalaureate institutions

State Board for Community & Technical Colleges
www.sbctc.cte.edu
Office of Superintendent of Public Instruction
www.k12.wa.us
Council of Presidents representing Washington's public baccalaureate institutions
Higher Education Coordinating Board
www.hecb.wa.gov

TMP is managed by
Washington State Board for Community & Technical Colleges
319 SE 7th Avenue, PO Box 42490
Olympia, WA 98504-2495
360-704-4346

This document is available as a PDF at
http://transitionmathproject.org/standards.asp
What is the Transition Mathematics Project (TMP)?

- A public-private partnership funded by the Washington legislature and the Bill & Melinda Gates Foundation.
- Goal is to improve student preparation in math as they transition from high school to college and work.
TMP Partners

• Office of the Superintendent of Public Instruction
• State Board for Community and Technical Colleges (lead agency)
• Higher Education Coordinating Board
• Council of Presidents
Project Phase I

• Defined clear and consistent expectations in math so teachers can effectively prepare all students to succeed after high school and avoid remediation in college or post-secondary training - detailed in the College Readiness Mathematics Standards (distributed 22,000 copies).

• Developed practical communications materials so students and parents understand what it takes to be prepared for college-level math - available in the Math Lab for parents and students and the Marketing Toolkit for educators.

• Established local/regional partnerships with high school and college instructors to share math curricula, teaching methods, and best practices. (Funded 19 partnerships projects)
How do you make choices?
Understanding and applying mathematical principles to everyday experiences can help you with the way the real world works. Math standards can be a yardstick to measure your progress.

Reasoning
Use logical reasoning and math to define and solve problems, such as prioritizing your time or creating a budget to help you make financial decisions.

Communication
Understand and discuss mathematical information in both mathematical and everyday language, for instance, negotiating a raise or buying a condo.

Connections
Use math and mathematical thinking in other subjects, such as chemistry, and in everyday situations, like estimating how much time it will take you to read the rest of this poster.

Washington State Transition Mathematics Project (TMP)
For more information checkout www.transitionmathproject.org
Number Sense
Apply math to a situation and be able to explain how you reached your correct conclusion, such as dividing the amount owed for bills between roommates.

Geometry
Use geometry to backup a claim or observation, model situations, and draw conclusions, such as fitting a sofa through a doorway or mastering parallel parking.

Probability/Statistics
Analyze data using probability and statistics, such as determining the odds of locking the keys in your car with the engine running during a rainstorm.

Algebra
Use algebra to solve equations and model complex situations, such as calculating the amount of your cellular phone bill by the number of text messages sent and minutes used per call.

Functions
Use function concepts and procedures to understand mathematical relationships; for instance calculating how far (and how fast) you can drive after the gas gauge hits “Empty.”

A plumber uses geometry to calculate the total length of pipe needed for a job, including corners and curves.

An interior designer uses number sense to figure how much fabric and the cost to make custom bedroom curtains.

A baseball coach uses pitching and batting statistics to set his lineup and pitching rotation.

An excavator uses algebra to accurately remove the required cubic yardage of earth to make space for a building foundation.

A loan officer calculates the total amount of interest on a loan depending on the amount the buyer pays at the time of purchase.

WASHINGTON STATE TRANSITION MATHEMATICS PROJECT (TMP)
For more information checkout www.transitionmathproject.org
It’s all about YOU.
On campus, here’s what your instructors will be expecting:

You demonstrate intellectual engagement.
- use mathematics as a way of understanding
- explore new ideas
- recognize patterns
- are willing to take risks and be challenged
- contribute to and benefit from group problem solving

You take responsibility.
- attend class and learn the material
- do the work assigned for class
- learn from errors and get help when needed
- take advantage of resources
- set aside the time necessary to be successful

You pay attention to detail.
- correctly follow directions without needing a reminder
- make few errors due to lack of attention
- anticipate problems, ask questions, and make use of the answers

You complete time-consuming or complex tasks.
- know that effort is critical to success
- are willing to work on problems that require time and thought
- recognize unproductive approaches and make changes to accomplish your tasks
- successfully complete tasks

No one has all these skills — we can help you develop them. Talk to your math teacher about these essential skills for math success.
Phase II

• Developed the College Readiness Mathematics Test (CRMT): a common college readiness test for use across the state.

• Increased curriculum alignment between high schools and colleges using the College Readiness Mathematics Standards as the fundamental framework.

• Developed and disseminated standards-based instructional materials (supplemental classroom tasks, assignments and assessments) built on the College Readiness Mathematics Standards.
Some outcomes of the Regional Partnerships:

• New senior “bridge” courses between high school and college.
• Lesson plans for each of the CRS content standards.
• New curricula supporting math/CTE integration.
• Summer institutes for middle and high school math teachers.
• “Math Nights” at area high schools.
• Professional learning communities.
• The “Construction Math Toolbox”.
Quotes from a 2009 Survey of TMP participants
“The creation of the college-readiness standards afforded our institution a document that we can use as a road-map to prepare our students for college. The document itself is not enough, however, so the TMP has also provided support in the implementation process and a network of 9-20 educators working together to make the document useable in the classroom by discussing good research-based teaching practices. ...Instead of working in isolation to better educate students, people are now collaborating not only within buildings, but also across varying institutions.”
“With the support of TMP, we've been able to develop a course that has parallel sections in the high school and college. This course is intended for students who are not on the math-science track. We hope this course will reduce the number of college students who were required to take a remedial math course for their non math/science major requirements.”
“TMP has caused a change in mathematics instruction. Before TMP, I was on my own with the curriculum as a resource and making decisions on my own. TMP has opened the door to talk about instruction. Teachers have taken a risk to discuss what works, what doesn't work and how we can make instruction better for students. Through TMP, common assessments have been developed and used across the region.”
Challenges and Next Steps

• TMP did not receive state funding for Phase III.
• SBCTC did receive a $6.1 million grant for the Washington Student Completion Initiative (Gates and Ford Foundations).
• Washington’s HECB is leading efforts on college readiness standards for English and science. Working to better align Title II professional development program with college readiness projects.
• Use a “Center of Excellence” model to provide sustainable professional development resources.
• Continue to evaluate and refine the CRMT.
For more information on the Transition Mathematics Project (TMP) visit:

www.transitionmathproject.org

Mike Reilly
Council of Presidents
mreilly@cop.wsu.edu