

The Washington State Board of Education

Governance | Achievement | High School and College Preparation | Math & Science | Effective Workforce

Title:	The Math Transcript Placement System at Green River Community College	
As Related To:	<input type="checkbox"/> Goal One: Advocacy for an effective, accountable governance structure for public education <input type="checkbox"/> Goal Two: Policy leadership for closing the academic achievement gap. <input checked="" type="checkbox"/> Goal Three: Policy leadership to increase Washington's student enrollment and success in secondary and postsecondary education	<input type="checkbox"/> Goal Four: Effective strategies to make Washington's students nationally and internationally competitive in math and science <input type="checkbox"/> Goal Five: Advocacy for policies to develop the most highly effective K-12 teacher and leader workforce in the nation <input type="checkbox"/> Other
Relevant To Board Roles:	<input type="checkbox"/> Policy Leadership <input checked="" type="checkbox"/> System Oversight <input type="checkbox"/> Advocacy	<input type="checkbox"/> Communication <input type="checkbox"/> Convening and Facilitating
Policy Considerations / Key Questions:	How the K-12 and Higher Education systems work together to reduce remediation costs at the post-secondary level, and develop best practices that provide for the best course placement for students at the CTC level?	
Possible Board Action:	<input type="checkbox"/> Review <input type="checkbox"/> Adopt <input type="checkbox"/> Approve <input type="checkbox"/> Other	
	<input checked="" type="checkbox"/> Memo <input type="checkbox"/> Graphs / Graphics <input checked="" type="checkbox"/> Third-Party Materials <input type="checkbox"/> PowerPoint	
Synopsis:	<p>Given our presence on the Campus for the March meeting, the Board has made an effort to cultivate some of the interesting work happening at Green River Community College.</p> <p>Faculty and administrators at Green River Community College have developed and implemented an innovative course placement method that differs from the typical. Instead of relying on ACCUPLACER and COMPASS tests solely, they have developed a multiple measures approach that incorporates high school coursework and grades. This requires collaboration with local high schools to develop a crosswalk rubric that guides a student to particular coursework based on the courses they've taken, what grade they received, and when they took the course.</p> <p>This approach suggests a number of benefits. It develops strong collaborative relationships between community colleges and neighboring school districts. Additionally, it appears to offer an incentive to students to take more math courses, since doing so potentially gives them more control over their course placement at the community college level. There is also some empirical research to suggest that transcript placements are more predictive of future success in college.</p> <p>The Board focus is the implications of this work for the K-12 system.</p>	

What is the Math Transcript Placement System?

The Transcript Placement System at Green River Community College is designed to make math course placement decisions utilizing a multiple measures approach. Rather than relying exclusively on an off-the-shelf, computer adaptive test, such as ACCUPLACER or COMPASS, this methodology draws data from a variety of sources, including the courses students' took in high school and what grade they achieved in those courses.

Green River's placement approach emphasizes student choice – students and parents choose which placement option they want to utilize. The placement options include the following:

1. COMPASS Test.
2. Transcript Placement.
3. Entrance Exams (placement exams developed in-house).
4. CRMT/MPGT Test Score (statewide test developed by the Transition Mathematics Project and the University of Washington Office of Educational Assessment).

The Transcript Placement System relies on the development of a rubric which crosswalks high school math coursework, when the math courses were completed and grades attained in those courses, with the appropriate community college-level course placement. Example rubrics are included in your packet. These rubrics are not uniform statewide – they are typically developed in collaboration with practitioners in neighboring school districts and are unique to the courses locally offered. In the case of Green River, they have developed rubrics with the Kent, Auburn, Renton, Enumclaw, Sumner, and Tahoma school districts, and have used them for course placement since 2004. At least two other community colleges are implementing similar methodologies.

The transcript placement methodology is part of the Transitions Math Project at the State Board for Community and Technical College and is also a focus of the K-12/Higher Education summit, initiated by Superintendent Dorn last fall.

Why is the State Board of Education Taking Up This Issue?

The State Board has a statutory responsibility to “articulate with the institutions of higher education, workforce representatives, and early learning policymakers and providers to coordinate and unify the work of the public school system” (RCW 18A.305.130). The work of Green River Community College, in collaboration with local school districts, is an example of a “best practice” in developing seamless transitions between K-12 and higher education sectors of the system.

The State Board's strategic plan (Goal 4; Strategic A.1) requires SBE to research and communicate effective policies to make Washington internationally competitive in math and science.

What Benefits Does Transcript Placement Offer the System?

Transcript placement offers a number of benefits. There is a belief among some experts and practitioners that COMPASS and ACCUPLACER scores offer helpful but not sufficient data in placing students for college courses, particularly in instances when those students haven't taken high school math for a number of years. A multiple measures approach, it is thought, is more likely

to produce a valid placement. Indeed, some recent national research done by Dr. Clive Belfield from Columbia University supports this claim. Belfield's research compares COMPASS and ACCUPLACER data sets with a students' subsequent performance in college and finds that "placement tests do not yield strong predictions of how students will perform in college." (Belfield and Crosta, 2012) The belief that using multiple measures of academic preparedness can lead to more successful placement, particularly for community college students, is also supported by the work of Hughes and Scott-Clayton, 2010.

Additionally, transcript placement creates a more transparent college pathway for students. To the extent that students want to avoid pre-collegiate coursework, a rubric that shows a clear path from high school coursework and grades to a college coursework placement gives students and parents a sense of empowerment and an element of control that ACCUPLACER and COMPASS alone cannot offer. In the latter case, a placement score achieved on a particular date can dictate a sequence of coursework that may be misaligned with a students' coursework up to that point, requires additional cost, and involves an opportunity cost to the extent the student could otherwise have taken courses of personal interest.

Perhaps more importantly; however, transcript placement gives students (and parents) an implicit incentive to take more high school math. Beyond the minimum requirements of high school graduation, students can see a tangible benefit to taking additional courses: more advanced math course placement at the community college level. This can reduce remediation costs for both the student and the system, and also increase student learning and thus, college and career success.

Finally, the development of the crosswalk rubrics for course placement involves extensive collaboration with educators at the community college and school district level. This creates an ongoing platform for cross-sector relationship-building and articulation on issues of curriculum, standards, and student guidance and support.

What are the longer-term implications for the system?

Although remediation costs and validity questions about off-the-shelf placement tests are more pronounced in math, they are not unique to math. Consideration should be given to the development of similar types of placements in other subject areas, such as English/Language Arts.

As the state begins to adopt assessments linked to the new Common Core standards, those tests will be given to students in their junior year, rather than sophomore year per current practice. It is worth considering whether the SBAC tests can be utilized as another reliable indicator of appropriate course placement.

Given the statewide variability of high school coursework, the rubric development is context specific for each community college and collaborating high school. What statewide policy implications are there for a best practice that appears to be an inherently decentralized undertaking? How can the State Board of Education and other state policymakers encourage this practice without unnecessarily standardizing it?



Mathematics Placement at Green River Community College

Green River has a multi-faceted math placement system. Students have multiple options for placement into math courses. These include:

- COMPASS Test
- Transcript Placement (see below)
- Entrance Exams (see below)
- CRMT/MPGT Test Score
- Instructor Permission

A student new to Green River has a number of options for initial placement. If they are a recent high school graduate or a Running Start student, they can be placed into their math classes via our transcript placement process. If they have taken the College Readiness Math Test (CRMT) and are determined to be college ready, they can be placed into any of our first level college math courses. Otherwise, they will be asked to take the COMPASS exam and will be placed based on that score. If they are not satisfied with their COMPASS placement, they may take our in-house entrance exams or seek instructor permission.

Transcript Placement

Green River Community College has been using transcript placement as an alternate placement method for recent high school graduates and Running Start students since September, 2004. Rubrics have been developed for Kent, Auburn, Renton, Enumclaw, Sumner, and Tahoma School Districts (see attached sample rubrics). Transcript evaluation rubrics have been dissemination to high schools and to educational advisors on campuses. Other community colleges, such as South Seattle and Everett, are implementing a similar model. Some considerations around placing students into mathematics courses based on their high school transcripts include the following:

- Using multiple measures of academic preparedness can lead to more successful placement for community college students.
- Communicating with high schools while developing the transcript rubrics can foster relationships between the two sectors for a more seamless K-14 transition.
- Provides motivation to high school students to take additional math courses and earn higher grades.
- Community college and high school courses that have similar mathematics learning objectives are different in scope, breadth, and time span.
- Sends a strong message that taking no math for a year (e.g., senior year) may affect placement.

GRCC Entrance Exams

Green River has also had in-house entrance exams for many years that are given to students who want to challenge their COMPASS placement. These exams are written by our math faculty and are course specific to GRCC's courses. These exams were put into an online format two years ago and are now available upon request in our Testing Center for any student that is not happy with their COMPASS placement. Sample entrance exams are available online at: <http://www.instruction.greenriver.edu/DIV-Math/Advising/default.htm> (see attached).

Commitment to Proper Placement

Green River faculty are committed to making sure students are properly placed. If students begin a class and realize they are not properly placed, math faculty will shift students from section to section even if that means overloading their classes. This is crucial at a time when enrollments are so high and finding openings in any math class is difficult at the beginning of the quarter.

Green River Community College Math Advising/Placement

Taken from: <http://www.instruction.greenriver.edu/DIV-Math/Advising/default.htm>

In order to promote student success in mathematics, the Mathematics Division will make every effort to help place students at the appropriate level. As part of that commitment, the division has developed Entrance Exams and sample Entrance Exams for students to use to identify their correct placement. New students should take the mathematics portion of the COMPASS assessment to determine their math course placement.

Entrance Exams

Students who believe the COMPASS assessment does not accurately reflect their ability in mathematics may take an **Entrance Exam**. These exams were created by Green River Community College Math faculty and may be taken in the Assessment Center located in the Zgolinski Welcome Center (ZWC). The exams are online utilizing the WAMAP system. For more information about Entrance Exams and placement, [click here](#).

Sample Entrance Exams

Password required for access: **grccee**

the website for the exams is at WAMAP, [click here](#) to go to that website. To print out directions for accessing the sample exams in WAMAP and tips for entering math expressions on the computer, [click here](#).

Preparing for Entrance Exams

If you elect to take an entrance exam pleased be advised:

- 1) You are strongly encouraged to complete a Sample Entrance Exam before taking the actual exam. Go to this link for online samples:
WAMAP
- 2) The Entrance Exam for a particular class can only be taken once.
- 3) A score of 80% or higher is required for placement into courses below the 100 level and a 75%-80% or higher is required for placement in classes above the 100 level
- 4) A calculator may be used on the exams (except for Math 62). Please bring your own.

Recent High School Graduates

Are you a recent graduate (transcripts are within one year) from Kent, Auburn, Tahoma, Enumclaw, Renton or Sumner High School? View our placement agreements with these districts based on your completed coursework...[Kent HS graduates click here](#).....[Tahoma HS graduates click here](#)....[Enumclaw HS graduates click here](#)....[Renton HS graduates click here](#)...[Sumner HS graduates click here](#)...[Auburn HS graduates click here](#).



**AUBURN PUBLIC HIGH SCHOOLS ALTERNATIVE PLACEMENT
FOR GRADUATES WHO PLAN TO TAKE MATHEMATICS AT GREENRIVER
COMMUNITY COLLEGE WITHIN ONE YEAR OF HIGH SCHOOL
GRADUATION OR FOR RUNNING START STUDENTS..**

The goal of Green River Community College is to encourage success in mathematics. Realistic placement is critical for a student's success. In addition to our COMPASS assessment, students may be placed according to the following chart:

Students who have earned a C or lower in their last math class must be placed by COMPASS.

<i>If your last math course was . . .</i>	<i>and you earned a grade of . . .</i>	<i>and you completed it within _____ of today's date:</i>	<i>your placement will be . . .</i>
Algebra I & II	C+ or better	One year	Math 70
		Two years	You will need to use your COMPASS score.
	B+ or better	One year	Math 72
		Two years	Math 70
Geometry I & II	C+ or better	One year	Math 72
		Two years	Math 70
	B+ or better	One year	Math 97
		Two years	Math 72
Advanced Algebra/Trig (Alg III & IV and Geometry I & II)	C+ or better	One year	Math 97
		Two years	Math 72
	B or better	One year	Math& 141 ^(a) , 107, Math 147, 170
		Two years	Math 97
	A	One year	Math& 141 ^(a) , 107, Math 106 ^(b) , 147, 170
		Two years	Math& 141 ^(a) , 107, Math 147, 170
BAT Math	C+ or better	One year	Math 97
		Two years	You will need to use your COMPASS score.
	B+ or better	One year	Math & 141 ^(a)
		Two years	Math 97
Pre-calculus I & II	C+ or better	One year	Math 97 or Math & 107
		Two years	Math 97
	B or better	One year	Math& 107, 141 ^(a) , 142 ^(a) , 151 ^(a) , Math 106 ^(b) , 147, 170.
		Two years	Math&141 ^(a) , 107, Math 147, 170
	A- or better	One year	Math& 107, 151 ^(a) , Math 106 ^(b) , 147, 170
		Two years	Math& 107, 151 ^(a) , Math 106 ^(b) , 147, 170
AP Calculus I & II	1 on AP test or no AP test with a class grade of C or higher		Math& 107, 141 ^(a) , 151 ^(a) , Math 106 ^(b) , 147, 170 (Student may wish to meet with Math Faculty)
	2 on AP Test		Math& 148 or 151 ^(a)
	3 or better on AP Test	See GRCC catalogue for Advanced Placement Credit.	

- a Math& 141, 142, 151 and Math 147 require significant time and effort, often considerably more than the minimum of 10 hours of out-of-class study time per week normally needed for other math classes.
- b Math 106 is designed as a condensed review of the topics in Pre-calculus (Math& 141 and 142). The coursework requires more than the minimum of 10 hours of out of class study time per week.

- Placement by this method expires one academic year after the student graduates from high school. The sooner the student takes his or her math class at GRCC, the better success the student is likely to have, since math skills tend to be forgotten over a period of time.
- **Please communicate to the students that if, after the quarter starts, they feel they have been placed too high, they should talk with their instructor.**



KENT PUBLIC HIGH SCHOOLS ALTERNATIVE PLACEMENT
 FOR GRADUATES WHO PLAN TO TAKE MATHEMATICS AT GREENRIVER
 COMMUNITY COLLEGE WITHIN ONE YEAR OF HIGH SCHOOL GRADUATION
 OR FOR RUNNING START STUDENTS.



The goal of Green River Community College is to encourage success in mathematics. Realistic placement is critical for a student's success. In addition to our COMPASS assessment, students may be placed according to the following chart:

Students who have earned a C or lower in their last math class must be placed by COMPASS.

<i>If your last math course was . . .</i>	<i>and you earned a grade of . . .</i>	<i>and you completed it within _____ of today's date:</i>	<i>your placement will be . . .</i>
Algebra I & II	C+ or better	One year	Math 70
		Two years	You will need to use your COMPASS score.
	B+ or better	One year	Math 72
		Two years	Math 70
Geometry I & II	C+ or better	One year	Math 72
		Two years	You will need to use your COMPASS score.
	B+ or better	One year	Math 97
		Two years	Math 72
Algebra III & IV and Geometry I & II	C+ or better	One year	Math 97
		Two years	Math 72
	B or better	One year	Math& 141 ^(a) , 107, Math 147, 170
		Two years	Math 97
A	One year	Math& 141 ^(a) , 107, Math 106 ^(b) , 147, 170	
	Two years	Math& 141 ^(a) , 107, Math 147, 170	
Applications in Mathematical Reasoning (if student has taken either Pre-calculus or Calculus placement is based on those grades)	C+ or better	Two years	Math 072
		One year	Math 097
	B or better	Two years	Math 097
		One year	Math& 141 ^(a) , 107, Math 147, 170
Pre-calculus & Trig	C+ or better	One year	Math 97 or Math& 107
		Two years	Math 97
	B or better	One year	Math& 107, 141 ^(a) , 142 ^(a) , 151 ^(a) , Math 106 ^(b) , 147, 170.
		Two years	Math& 141 ^(a) , 107, Math 147, 170
A- or better	One or two years	Math& 107, 151 ^(a) , Math 106 ^(b) , 147, 170	
AP Calculus AB or BC	1 on AP test or no AP test with a class grade of C or higher		Math& 107, 141 ^(a) , 151 ^(a) , Math 106 ^(b) , 147, 170 (Student may wish to meet with Math Faculty)
	2 on AP Test		Math& 148, or 151 ^(a)
	3 or better on AP Test	See GRCC catalogue for Advanced Placement Credit.	
AP Statistics I & II	See GRCC catalogue for AP Credit.	Follow placement for the Alg III & IV, Pre-calculus & Trig OR AP Calculus: whichever is most recent. (Student may wish to meet with Math Faculty)	

- a Math& 141, 142, 151 and Math 147 require significant time and effort, often considerably more than the minimum of 10 hours of out-of-class study time per week normally needed for other math classes.
- b Math 106 is designed as a condensed review of the topics in Pre-calculus (Math& 141 and 142). The coursework requires more than the minimum of 10 hours of out of class study time per week.

- **Placement by this method expires one academic year after the student graduates from high school. The sooner the student takes his or her math class at GRCC, the better success the student is likely to have, since math skills tend to be forgotten over a period of time.**
- **Please communicate to the students that if, after the quarter starts, they feel they have been placed too high, they should talk with their instructor.**