SREB Readiness Courses: Preparing Students for Success

SREB has worked for over a decade with states to introduce policies and programs that address the issue of too many students graduating from high school not prepared for success in the college classroom or workplace.

For states and schools that wish to close the readiness gap, SREB has developed two sets of readiness courses in literacy and mathematics:

The Ready for College courses are designed to give underprepared students a solid foundation for success in college and postsecondary training.

The Ready for High School courses offer an earlier intervention, reaching underprepared students as they enter high school, which for many students is the most critical time in their education in determining future success.

Why the SREB Readiness Courses Are Needed

The link between education and economic development is stronger than ever. As the United States struggles to meet its workforce and educational needs in the 21st century, the single biggest challenge is closing the readiness gap. Most students graduating from high school are not prepared for postsecondary studies. By 2020, 65 percent of all jobs will require education or training beyond high school; yet the majority of high school graduates lack the most basic skills in literacy and mathematics (Georgetown Center on Education and the Workforce analysis).

The Condition of College & Career Readiness (ACT, 2017) reports that only 47 percent of the students taking the ACT exam in 2017 met the College Readiness Benchmark in reading, and only 41 percent of the students met the College Readiness Benchmark in math. More evidence of the readiness gap can be found in the ACT’s National Career Readiness Certificate (NCRC) assessment. It indicates an individual qualifying for the ACT NCRC Gold Level has the essential foundational skills (applied mathematics, workplace documents and graphic literacy) required by 93 percent of jobs, yet only 19 percent of individuals who earn an NCRC credential qualify at the Gold Level or higher.
SREB offers two Ready for College courses, Literacy Ready and Math Ready, designed to prepare students for college before they graduate from high school. By implementing senior-year courses in literacy and mathematics for underprepared students, schools can give students the foundation they need for success in postsecondary studies. These courses are being implemented in thousands of high schools across the nation with impressive results. In a 2015 study of students in Literacy Ready and Math Ready, students showed statistically significant gains in ACT English and math scores, respectively. Students taking both Literacy Ready and Math Ready showed across-the-board gains on their ACT English, reading, math and science subscores. States can close the readiness gap of their high school graduates by implementing Literacy Ready and Math Ready.

English Unit 1: The Shallows by Nicholas Carr
The first English unit has students read informational text from Nicholas Carr’s The Shallows: What the Internet is Doing to Our Brains and related supplemental texts. Students collect evidence for a stance-based synthesis presentation.

English Unit 2: Ubik by Philip K. Dick
The second English unit moves into literary study, using Ubik by Philip K. Dick, as the central text. Students collect and present evidence for a literary argumentative essay and debate a question drawn from the theme of the novel.

English Unit 3: A Midsummer Night’s Dream by William Shakespeare
The third English unit focuses on literary analysis and the reading of assorted texts from William Shakespeare’s A Midsummer Night’s Dream. Students use close reading strategies to comprehend complex text and annotate complex informational text. Students write an essay analyzing the “dreams” that occur in the play.

History Unit 1: The Civil Rights Movement
This unit focuses on the Civil Rights Movement and changes in the 1960s. Students draw information from a textbook chapter, a film, a lecture and multiple sources as they learn to recognize implicit and explicit textual evidence and form written arguments based on historical accounts.

History Unit 2: The Cuban Missile Crisis
This unit focuses on U.S. involvement in the Cuban Missile Crisis. Students read multiple texts and place a strong emphasis on writing historical arguments and an argumentative essay.

History Unit 3: The Vietnam War
This unit focuses on the United States and foreign affairs during the Vietnam War. Students use disciplinary reading strategies in history sourcing, contextualization and corroboration to make meaning from multiple perspectives on history. Students read longer, difficult texts to increase their ability to read complex historical texts independently.

Science Unit 1: Nutrition
Students are introduced to disciplinary literacy in the sciences — learning strategies for reading a variety of texts, including science textbooks, research and news articles. They discover different ways to write about science — personal reflection and public consumption. Students comprehend the information in multiple representations.

Science Unit 2: DNA and Biotechnology
Students extend their understanding of literacy in science by reading research articles and textbook materials, taking notes from lecture videos and making predictions using scientific models. Students face greater depth in writing as they prepare an evidence-based presentation in a research symposium.

Note to teachers: The recommended sequence of units for a full-year course or a semester-based course in a block schedule: English Unit 1, History Unit 1, Science Unit 1, English Unit 2 or 3, History Unit 2 or 3, Science Unit 2
Ready for College: *Math Ready*

This course emphasizes an understanding of math concepts, as opposed to memorizing facts. Math Ready students learn the context behind procedures and come to understand the “whys” of using certain formulas or methods to solve a problem. By engaging students in real-world applications, this course develops critical-thinking skills that students will use in college and careers.

**Unit 1: Algebraic Expressions**
This unit focuses on strengthening students’ understanding of basic numerical operations and manipulations, including multiple representations of equivalent expressions. The unit contains a unique approach that students will find entertaining while facilitating mathematical growth.

**Unit 2: Equations**
The equations unit takes a nontraditional, active-learning-based approach to reviewing fundamentals of solving one-, two- and multi-step equations. Topics include linear equations, linear equations that include absolute values and linear inequalities.

**Unit 3: Measurement and Proportional Reasoning**
This unit deals with conversions, using proportions for scaling and area and volume. It requires students to show higher-order thinking and number sense, which helps them make connections with math and science or other subjects in an applied setting.

**Unit 4: Linear Functions**
This unit takes an in-depth study of linear functions. Students graph and write equations and interpret their meaning in context of the slope and y-intercept. It concludes with students collecting data and writing a line of best fit.

**Unit 5: Systems of Linear Equations**
The unit is about solving systems of linear equations. Students classify solutions as well as set up and solve problems using systems of equations. Students choose the best way to solve a system of equations and explain their solutions.

**Unit 6: Quadratic Functions**
This unit is an expansive look at quadratic functions: their graphs, tables and algebraic functions. It stresses multiple approaches to graphing, solving and understanding quadratics as students explore, make conjectures and draw conclusions in group-work settings.

**Unit 7: Exponential Functions**
Students gain fluency in exponential functions through varying real-life financial applications/inquiries. The unit builds understanding of these higher-level functions and lets students reflect upon the ramifications of their future financial choices.

**Unit 8: Statistics**
This unit brings an active-learning approach to probability and statistics. The primary emphasis is on linear regression and fitting equations to data. Simple probability topics support the understanding of regression, and some attention is given to normal distributions.
Ready for High School Courses: *Prepared for High School and Beyond*

To address the high failure and dropout rates that occur during the ninth grade, SREB has developed two courses, Ready for High School Literacy and Ready for High School Math. These courses strengthen underprepared students as they enter high school, setting them on the path to success and increasing their prospects for graduation.

Research shows that between 70 percent and 80 percent of students who fail in the first year of high school will not graduate. By implementing courses in literacy and mathematics for underprepared students, schools can increase their ninth-grade retention rates and ultimately their high school graduation rates. A ninth-grade student is three to five times more likely to fail a class than students in any other grade. The courses with the highest failure rates are English, algebra and biology.

### Ready for High School Literacy

This course utilizes a disciplinary literacy approach that teaches students strategies for reading and understanding complex texts in various subject areas. Students learn to develop and defend ideas and write about them in several disciplines, such as English, history and science, on a high school level. The unit structure conforms to the LDC framework while preparing students for the rigors of high school studies.

#### Ready for High School Literacy Outline

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<thead>
<tr>
<th>English Unit 1:</th>
<th>How the Brain Functions: What it Means to be Human</th>
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<tbody>
<tr>
<td>History Unit 1:</td>
<td>World War II: What Makes Nations Take Extreme Measures?</td>
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<tr>
<td>Science Unit 1:</td>
<td>What Will the Earth Look Like in a Million Years?</td>
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<tr>
<td>English Unit 2:</td>
<td>Fictional Text on the Study of the Human Brain</td>
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<td>History Unit 2:</td>
<td>World History: Studying Texts as Historians</td>
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<td>Science Unit 2:</td>
<td>Environmental Science: Constructing Arguments</td>
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### Ready for High School Math

This course emphasizes understanding of math concepts rather than just memorizing procedures. In Ready for High School Math, students learn the whys of using certain formulas or methods to solve a problem. By engaging students in real-world applications, Ready for High School Math develops critical-thinking skills that students will use throughout their high school studies. The course consists of eight units, culminating in a capstone project.

#### Ready for High School Math Outline

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<tr>
<th>Unit 1:</th>
<th>The Number System</th>
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<tr>
<td>Unit 2:</td>
<td>Ratios &amp; Proportional Relationships</td>
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<td>Unit 3:</td>
<td>Univariate Statistics and Probability</td>
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<td>Unit 4:</td>
<td>Expressions and Equations</td>
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<td>Unit 5:</td>
<td>Geometry</td>
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<td>Unit 6:</td>
<td>Functions &amp; Linear Relationships</td>
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<td>Unit 7:</td>
<td>Systems of Linear Equations &amp; Inequalities</td>
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<td>Unit 8:</td>
<td>Capstone Project</td>
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Improve student outcomes in your school or district.

Contact John Squires at Ready@SREB.org for more information about the Ready for High School or Ready for College courses.