



THE WASHINGTON STATE BOARD OF EDUCATION

Governance | Accountability | Achievement | Oversight | Career & College Readiness

Title:	Legislative Update	
As Related To:	<input type="checkbox"/> Goal One: Effective and accountable P-13 governance. <input type="checkbox"/> Goal Two: Comprehensive statewide K-12 accountability. <input checked="" type="checkbox"/> Goal Three: Closing achievement gap.	<input type="checkbox"/> Goal Four: Strategic oversight of the K-12 system. <input checked="" type="checkbox"/> Goal Five: Career and college readiness for all students. <input type="checkbox"/> Other
Relevant To Board Roles:	<input checked="" type="checkbox"/> Policy Leadership <input checked="" type="checkbox"/> System Oversight <input checked="" type="checkbox"/> Advocacy	<input type="checkbox"/> Communication <input type="checkbox"/> Convening and Facilitating
Policy Considerations / Key Questions:	The Board will consider approval of an amended resolution to approve Career and College Ready Graduation Requirements. The Board also will consider an updated list of legislative priorities for the 2014 Legislative Session.	
Possible Board Action:	<input checked="" type="checkbox"/> Review <input type="checkbox"/> Adopt <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Other	
Materials Included in Packet:	<input checked="" type="checkbox"/> Memo <input checked="" type="checkbox"/> Graphs / Graphics <input type="checkbox"/> Third-Party Materials <input type="checkbox"/> PowerPoint	
Synopsis:	<p>This portion of your packet includes the amended resolution on Career and College Ready Graduation Requirements that will be voted on for approval on January 9. You will also find the following documents:</p> <ul style="list-style-type: none"> • Memo on amended graduation requirement resolution resolution. • Summary of Career and Technical Education course equivalency legislation. • November 10, 2010 Resolution to Approve Washington State Graduation Requirements: Career and College Ready • 24-Credit Graduation Requirements: Pathways to Postsecondary • Graduation Requirements: Three Credits of Science, Including Two Labs • Comparison of current Washington graduation requirements to states that have Common Core College and Career Ready graduation requirements • Updated summary of Legislative Priorities 	



GRADUATION REQUIREMENT AMENDED RESOLUTION

Policy Consideration

The State Board of Education (SBE) will consider adopting an amended graduation requirement resolution that modifies the proposed requirements of the November 2010 resolution. The purpose of the amended resolution is to emphasize both flexibility in student class choices and rigor in the core academic requirements. The emphasis on flexibility will ensure that students have the opportunity to pursue a full range of postsecondary options.

Summary

In 2010, after extensive research, outreach, and public input, the SBE approved a resolution supporting 24-credit graduation requirements. The requirements for English and social studies specified in the November 2010 resolution were implemented for the Class of 2016, because those changes were found to have no fiscal impact on school districts. The rest of the 24-credit requirements are yet to be implemented, pending legislative authorization and funding.

The impact of the 24-credit graduation requirements has been a concern to some, particularly in regard to students' ability to pursue a Career and Technical Education (CTE) program of study. Part of the 2010 resolution was a 'common pathway' or 'default pathway' intended to keep all postsecondary options open for students, including entry into a public four-year institution. The default pathway included subject requirements that aligned with public four-year college admission standards. Although the graduation requirement framework allowed students to opt out of the default pathway, concerns remained that (1) students might be counseled or think they must take classes that would preclude pursuing a CTE program of study at a high school or skills center, or (2) students who struggled and failed one or two requirements would be shut out of the opportunity to pursue a CTE program of study.

Because of these concerns expressed to Board members and staff, staff was directed to develop a proposed, amended 24-credit graduation requirement resolution. Both the November 10, 2010 resolution and the draft amended resolution are included in this section of your packet. Table 1 below summarizes the differences. The amended resolution reflects a shift away from a default pathway, toward an emphasis on flexibility and planning. The High School and Beyond Plan remains an important part of the graduation requirements, as the vehicle for supporting and documenting intentionality in student course choices.

The proposed amended resolution uses two terms related to pathways, and both of which are specified in a student's High School and Beyond Plan:

- 1) Postsecondary Pathway: A sequence of required or recommended classes and activities that prepare students for a particular postsecondary goal;
- 2) Personalized Pathway Requirements: Specific required or recommended high school classes that are part of a student's individualized postsecondary pathway, and that explicitly

further a student’s progress towards a postsecondary goal. For example, two credits of world language would be the Personalized Pathway Requirements for a student who plans on pursuing a baccalaureate degree in their postsecondary education, since two credits of world language are required for 4-year college or university admission.

Table 1: Summary of Changes Made to the November 10, 2010 Graduation Requirement Resolution Resulting in the Proposed Amended Resolution

November 10, 2010 Resolution	Proposed Amended Resolution
<p>“Whereas” statements concerning:</p> <ul style="list-style-type: none"> • Preparing the state’s children for the 21st century • Excellent and equitable education • Basic Education • SBE rule-making authority • Recognition that the Legislature must authorize and fund grad requirements • WA in bottom percentage of states with 18-24 year-olds going directly to college • SBE has received input from stakeholders 	<p>Minor edits to the language to clarify and align with wording in statute</p>
<p>“Whereas” statement on graduation requirements being unchanged since 1985</p>	<p>Deleted, as graduation requirements were changed for the Classes of 2013 and 2016.</p>
<p>“Whereas” statement on English, science and social studies requirements being significantly lower than other states’</p>	<p>A phrase added to refer to the changes in English and social studies graduation requirements that the SBE implemented for the Class of 2016.</p>
	<p>Additional “whereas” statement recognizing the value of flexibility, electives, and Personalized Pathway Requirements</p>
<p>“Therefore, be it resolved” statement on all students enrolled in a common pathway</p>	<p>Deletes the reference to a common pathway and adds a statement on Postsecondary Pathways aligned with the student’s High School and Beyond Plan; further states that the postsecondary pathways are locally determined but must include the opportunity to attend a skills center, pursue a professional/technical program, or pursue a four-year degree.</p>
<p>List of requirements-- English: 4 credits Math: 3 credits Science, 2 labs: 3 credits Social Studies: 3 credits Health: .5 credit Occupational Education: 1 credit Fitness: 1.5 credits Arts: 2 credits World Languages: 2 credits Career Concentration: 2 credits</p>	<ul style="list-style-type: none"> • Adds in parentheses that Occupational Education includes Career and Technical Education. • Adds in parentheses that one arts credit may be a Personalized Pathway Requirement. • Adds in parentheses that World Languages is required for a four-year degree pathway. • Deletes Career Concentration. • Changes electives credits from 2 to 4.

Electives: 2 credits	<ul style="list-style-type: none"> • Adds a statement that Personalized Pathway Requirements are classes that meet the educational and career goals of individual students as expressed in their High School and Beyond Plans. • Adds a phrase that clarifies that while students must attempt 24 credits, up to two of the 24 credits may be waived by local administrators if students need to retake courses to fulfill the 17 core state requirements that all students must meet.
"Be it further resolved that" statements putting into effect policy changes with no fiscal impact for the Class of 2016.	These statements are deleted because the changes have already gone into effect.
Final "Be it further resolved that" statements concerning "all other changes to the requirements, including initiating the High School and Beyond Plan at the middle level" will be put into effect pending legislative authorization.	Minor edits to align wording with statute, and to state that SBE will continue to reexamine the High School and Beyond plan and the Culminating Project in career and postsecondary planning and preparation.

Background

The current work of the SBE on graduation requirements developed out of the 2006 directive to the SBE by the Legislature to revise the definition of the purpose and expectations of a public high school diploma (E2SHB 3098). In 2008, the SBE approved a 24-credit graduation requirement framework, and started to explore implementation issues with the Core-24 Implementation Task Force.

In 2009, in ESHB 2261, the Legislature directed that as part of the minimum instructional program of basic education, districts must make available to students:

Instruction that provides students the opportunity to complete twenty-four credits for high school graduation, subject to a phased-in implementation of the twenty-four credits as established by the legislature. Course distribution requirements may be established by the state board of education under RCW 28A.230.090 (RCW 28A.150.220).

The bill also directed that no changes to graduation requirements that result in additional costs to districts shall be made without legislative authorization:

The state board shall forward any proposed changes to the high school graduation requirements to the education committees of the legislature for review and to the quality education council established under section 114 of this act. The legislature shall have the opportunity to act during a regular legislative session before the changes are adopted through administrative rule by the state board. Changes that have a fiscal impact on school districts, as identified by a fiscal analysis prepared by the office of the superintendent of public instruction, shall take effect only if formally authorized and funded by the legislature through the omnibus appropriations act or other enacted legislation. (RCW 28A.230.090).

The 2013 Legislative session did not formally authorize 24-credit graduation requirements, but did provide funding to support 24-credit graduation requirements in the biennial budget act.

Action

The Board will consider adoption of an amended graduation requirement resolution.



CAREER AND TECHNICAL EDUCATION COURSE EQUIVALENCY LEGISLATION

Description and Intent

Legislation being prepared for the upcoming legislative session would standardize course equivalencies in the high-demand areas of science and math across districts. This would help to promote academic rigor in the equivalent courses and simplify course equivalencies for students, parents, schools, employers, and postsecondary institutions. It would also help to further the intent of RCW 28A.700 of creating cohesion in the Career and Technical Education (CTE) system. The clarity provided by this legislation may encourage increased enrollment in equivalent courses and corresponding CTE program sequences, increasing the number of students that further career options while earning their high school diplomas. The legislation would also help create equity in student access to course equivalencies and allow for more flexibility in how students meet graduation requirements.

The Office of the Superintendent of Public Instruction would be tasked with creating the standardized course equivalencies, building off of the work already undertaken for the model and suggested equivalencies. The State Board of Education (SBE) would then approve the equivalencies for fulfillment of graduation requirement credits.

Background

State law already allows for course equivalencies (RCW 28A.230.097) and the development of model CTE programs for high-demand sectors (RCW 28A.700.060). There is also an established role for OSPI to assist in increasing the rigor of CTE courses that are course equivalent (RCW 28A.700.070) and creating a model system for districts to establish course equivalency. This can be found on the OSPI CTE website. Each district is currently responsible for establishing its own course equivalencies, so they vary widely across the state. A course at a skills center that is an equivalent course for one district may not be for another district, so students in the same class can be receiving different credits.

Data provided by the CTE office at OSPI show that at least 101 school districts in Washington state have established course equivalencies. Seventy-four percent of those districts have science equivalencies and 61 percent have math equivalencies, indicating that these are high demand areas. The data also show that science and math equivalencies are distributed evenly across the state, regardless of district size.

Some skills centers and districts have developed consortia where course equivalencies are standardized at all the member districts. The Puget Sound Skills Center is an example where partner districts Highline, Federal Way, Fife, Tahoma, and Tukwila all participate in the established course equivalencies. To earn these equivalent credits, students must be enrolled in a CTE program for at least two semesters.

Potential Equivalencies

OSPI has developed a list of potential equivalencies as a part of their toolkit for districts. The list includes equivalencies for arts, English, health and fitness, mathematics, science, and social

studies. The science and math list are below, as well as some recommendations from skills center directors.

Science

- Natural Resources/Conservation
- Environmental Studies
- Sustainable Design and Technology
- Natural Resources Management and Policy
- Forestry
- Engineering Design 2
- Robotics Foundation*
- Technology Foundations
- Biomedical Sciences
- Biotechnology—Body Systems
- Agricultural Biotechnology
- Health Science Biotechnology
- JROTC Military Science
- Principles of Technology, Applied
- Materials Science Technology, Applied
- Forensic Science Technology/Crime Scene Investigation
- Introduction to Health Science Careers
- Therapeutic Services

- Veterinarian Assistant*
- Sports Medicine*
- Pre-Allied Health
- Nursing Assistant*
- Dental Assistant**

Mathematics

- Computer Programming
- Video Game Design/Digital Computer Animation
- Digipen**
- Consumer and Family Resource (Financial Fitness)
- Applied Math
- Financial Math
- Business Math
- Residential Carpentry
- Construction**
- Accounting
- Pre-Engineering**
- Alternative Energy**
- Aerospace Manufacturing**

* Suggested by OSPI and Skills Center Directors

** Suggested by Skills Center Directors

Potential Challenges

1. CTE instructors may need professional development to align curriculum and coursework with Common Core standards for math and Next Generation Science Standards.
2. Many equivalencies currently result in half credits, which would then require the student to take additional courses to fulfil the credit requirement.
3. Course equivalences must be transcribed as the graduation requirement course on a student's transcript, rather than by the CTE name and number. High school course names and numbers are not standardized across districts. However, there has been movement towards standardization through the use of state course codes.
4. There may still be concern among district faculty regarding the delivery of core academic concepts for graduation requirements in the CTE courses.
5. Each district has already established a process for determining course equivalency in accordance with RCW 28A.230.097(1), which may differ from the process used to develop the standardized equivalencies by the state. This may result in varying levels of rigor for course equivalencies in other subjects, such as social studies, compared to math and science.

**WASHINGTON STATE BOARD OF EDUCATION AMENDED RESOLUTION TO APPROVE
WASHINGTON STATE GRADUATION REQUIREMENTS:
CAREER AND COLLEGE READY**

As Approved January 9, 2014

WHEREAS, Our children are our state's future and our education system must prepare them now for the continuing challenges of the 21st century, and

WHEREAS, All students deserve an excellent and equitable education, and

WHEREAS, We must join together to support students in our education system and to provide the resources and direction needed to help all students succeed in meeting their educational and career goals, and

WHEREAS, Washington's Basic Education Act provides direction by stating that school districts must provide instruction of sufficient quantity and quality and give students the opportunity to complete high school graduation requirements that are intended to prepare them for postsecondary education, gainful employment, and citizenship, and

WHEREAS, The State Board of Education provides direction through its rule-making authority for state graduation requirements, including subject-area credits, a High School and Beyond Plan, and a Culminating Project by all students, and

WHEREAS, The State Board of Education recognizes that the Legislature must authorize and fund changes to graduation requirements that have state fiscal impact before they may take effect, and

WHEREAS, Washington State is in the bottom 20 percent of all states in participation of students ages 18-24 in education beyond high school, particularly low-income students, and many high school graduates of color are less likely to go directly to community/technical and four-year colleges, and

WHEREAS, Washington State graduation requirements for science are significantly lower than the majority of other states, as were state requirements for English and social studies until the State Board of Education implemented new graduation requirements for the Class of 2016, and

WHEREAS, The State Board of Education has listened to stakeholders and revised its graduation credit requirements proposal in response to the feedback received, and

WHEREAS, The State Board of Education has determined over a multi-year period of study that Washington's current state graduation requirements need to be strengthened so that students are prepared for the education and training needed to earn a credential beyond high school considered necessary for most living-wage jobs in the 21st century, and

WHEREAS, The State Board of Education places equal value on multiple pathways to career and college readiness, and calls for students, parents/guardians and local educators to work together on High School and Beyond Plans that will guide students' course selections through high school and evolve as students' goals develop and change, and

WHEREAS, The State Board of Education recognizes the value of flexibility in students' high school course choices, with flexible credits including electives and Personalized Pathway Requirements,

THEREFORE, BE IT RESOLVED THAT The State Board of Education is approving a set of amended career and college-ready graduation requirements that will allow all students to pursue personalized post-secondary pathways. These post-secondary pathways will be locally determined, but must include at least the following options for students:

- To pursue a professional/technical certificate or degree through a skills center or high school Career and Technical Education program.
- To pursue a professional/technical certificate or degree at a community or technical college.
- To pursue a four-year degree at a college, university, or college transfer program (students' high school classes should align with the Washington Student Achievement Council's College Admission Standards).

Each high school student will identify their post-secondary pathway in their High School and Beyond Plan.

The subject credit requirements are as follows:

English: 4 credits

Math: 3 credits

Science, 2 labs: 3 credits

Social Studies: 3 credits

Health: .5 credit

Occupation Education (includes Career and Technical Education): 1 credit

Fitness: 1.5 credits

Arts: 2 credits** (one may be a Personalized Pathway Requirement*)

World Languages (required if on a four-year degree pathway) or Personalized Pathway Requirement*: 2 credits

Electives: 4 credits

* Personalized Pathway Requirements are specific classes that are required or recommended to meet the educational and career goals of individual students as expressed in their High School and Beyond Plans.

**Only 1 credit in arts may be substituted for a Personalized Pathway Requirement.

While students must attempt 24 credits, up to two of the 24 credits may be waived by local administrators if students need to retake courses to fulfill the 17 core state requirements that all students must meet, and

BE IT FURTHER RESOLVED THAT The State Board of Education will continue to reexamine the role of the High School and Beyond plan and the Culminating Project in career and postsecondary planning and preparation, and to ensure greater consistency across districts, and

BE IT FURTHER RESOLVED that all other changes to the requirements, including initiating the High School and Beyond Plan at the middle school level, will take effect pending legislative authorization and funding.

Dr. Kristina Mayer, Chair

January 9, 2013

**WASHINGTON STATE BOARD OF EDUCATION RESOLUTION TO APPROVE WASHINGTON
STATE GRADUATION REQUIREMENTS:
CAREER AND COLLEGE READY**

As Approved November 10, 2010

WHEREAS, Our children are our state's future and our education system must prepare them now for the challenges of the 21st century, and

WHEREAS, All students deserve an excellent and equitable education, and

WHEREAS, We must join together to support students in our education system and to provide the resources and direction needed to help all students succeed in meeting their educational and career goals, and

WHEREAS, Washington's Basic Education Act provides direction by stating that school districts must provide instruction of sufficient quantity and quality and give students the opportunity to complete graduation requirements that are intended to prepare them for postsecondary education, gainful employment, and citizenship, and

WHEREAS, The State Board of Education provides direction through its rule-making authority for state graduation requirements, including subject-area credits, a High School and Beyond Plan, and a Culminating Project of all students, and

WHEREAS, The State Board of Education recognizes that the Legislature must approve and fund changes to graduation requirements that have state fiscal impact, and

WHEREAS, Despite a considerably changed world over the past 25 years, Washington students in the graduating class of 2011 are graduating under the same state credit requirements expected for the graduating class of 1985, and

WHEREAS, Washington State is in the bottom 20 percent of all states in participation of students ages 18-24 in education beyond high school, particularly low-income students, and many high school graduates of color are less likely to go directly to community/technical and four-year colleges, and

WHEREAS, Washington State graduation requirements for English, science, and social studies are significantly lower than the majority of other states, and

WHEREAS, The State Board of Education has listened to stakeholders and the recommendations of its Core 24 Implementation Task Force and revised its graduation credit requirements proposal in response to the feedback received, and

WHEREAS, The State Board of Education has determined over a three-year period of study that Washington's current state graduation requirements need to be strengthened so that students are prepared for the education and training needed to earn a credential beyond high school considered necessary for most living-wage jobs in the 21st century, and

WHEREAS, The State Board of Education places equal value on multiple pathways to career and college readiness, and calls for students, parents/guardians and local educators to work together on

High School and Beyond Plans that will guide students' course selections through high school and evolve as students' goals develop and change, and

THEREFORE, BE IT RESOLVED THAT The State Board of Education is approving a new set of career and college-ready graduation requirements. All students will be enrolled in a common pathway that will keep all postsecondary options open and will align with the Higher Education Coordinating Board's minimum four-year public college admission requirements unless students substitute courses according to their High School and Beyond Plans:

English: 4 credits
Math: 3 credits
Science, 2 labs: 3 credits
Social Studies: 3 credits
Health: .5 credit
Occupational Education: 1 credit
Fitness: 1.5 credits*
Arts: 2 credits**
World Languages: 2 credits*
Career Concentration: 2 credits*
Electives: 2 credits*

*Subjects that are asterisked have flexibility, either because of state law (e.g., students may be excused from fitness) or because the State Board of Education is allowing students to make choices that will enable them to pursue courses more consistent with the educational and career goals expressed in their High School and Beyond Plans. **Only 1 credit may be substituted in arts.

While students must attempt 24 credits, up to two of the 24 credits may be waived by local administrators if students need to retake courses to fulfill the state requirements, and

BE IT FURTHER RESOLVED THAT The State Board of Education will make changes to the high school and beyond plan and the Culminating Project to assure greater consistency of implementation across districts, and

BE IT FURTHER RESOLVED THAT It is the State Board of Education's intention, after the 2011 legislative session, to put those policy changes with no state fiscal impact, as determined by the Office of Superintendent of Public Instruction, into effect for the graduating class of 2016. Within the current 20 credit framework, the following credit changes would be made:

- Increase English from 3 to 4 credits
- Increase Social Studies from 2.5 to 3 credits, including .5 credits of civics
- Designate .5 credit of health (while retaining 1.5 credits of fitness)
- Decrease elective credits by 1.5

BE IT FURTHER RESOLVED THAT The State Board of Education will enact additional, no-cost policies, as determined by the Office of Superintendent of Public Instruction, to create more flexibility for districts to help students meet the graduation requirements. These policies would go into effect for the graduating class of 2016.

1. Remove the 150 hour definition of a credit and permit districts to establish policies that specify how they will know students have successfully completed the state's subject area content expectations sufficiently to earn a credit.
2. Establish a "two for one" policy to enable students to take a CTE-equivalent course and satisfy two requirements (one course = one credit = two requirements).
3. Make Washington State History and Government a non-credit requirement that must be successfully passed and noted on the student transcript that the requirement has been met.

BE IT FURTHER RESOLVED that all other changes to the requirements, including initiating the high school and beyond plan at the middle level, will be put into effect pending legislative approval and funding.



Jeff Vincent, Chair

November 10, 2010

Date



24-Credit Graduation Requirements Pathways to Postsecondary

BACKGROUND

The Washington State Board of Education is revising high school graduation requirements to better prepare students for life after high school – in gainful employment, postsecondary education and citizenship. While students need core knowledge to be productive, engaged citizens who can adapt to new challenges and circumstances, they also need the opportunity to pursue postsecondary pathways that align with their interests and passions and lead to careers.

WHY HAVE GRADUATION REQUIREMENTS?

Equity: State graduation requirements establish credit standards for **all** Washington students. All our students need the opportunity and the access to choose among a full range of postsecondary pathways, including career and technical certificates and degrees and four-year and post-baccalaureate degrees. Without uniform standards, some students in the state will have access and others will not.

Preparation: Washington is one of the top five states in the percentage of jobs requiring a postsecondary education; if we want our students to be prepared for the jobs in our own workforce, they must be ready for postsecondary education when they exit high school. More than 50 percent of recent high school graduates need to take pre-college math when they attend community or technical colleges. This wastes student time, and wastes student and taxpayer money.

Competition: Other states and countries have more rigorous credit and course standards. Washington students will be competing for jobs in a global economy; our students should have equal opportunities as students from other states and countries.

GUIDING PRINCIPLES

- All students should earn certain foundational high school course credits to meet the intent of basic education.
- In the 21st century, all students need Science, Technology, Engineering, and Math (STEM) skills. Three credits of math and three credits of science are foundational course credits.
- High school electives are important, allowing choice in course-taking, and providing the opportunity to explore a range of fields of knowledge and pursue particular postsecondary pathways.

- Every student should have a High School and Beyond Plan by ninth grade or earlier, upon which all course-taking decisions will be based; the plan may evolve if the student's interest and goals change.
- All students should be preparing for their lives after high school. Each student's High School and Beyond Plan should identify a postsecondary pathway.

POSTSECONDARY PATHWAYS

Postsecondary pathways are locally determined, but should include, at least, the opportunity to:

- To pursue a professional/technical certificate or degree through a skills center or high school Career and Technical Education program.
- To pursue a professional/technical certificate or degree at a community or technical college.
- To pursue a four-year degree at a college, university, or college transfer program. Students' high school classes should align with the Washington Student Achievement Council's College Admission Standards.

PROPOSED GRADUATION REQUIREMENTS

Subject	Requirements for the Class of 2016 & Beyond	Proposed Career- & College-Ready Graduation Requirements
English	4	4
Math	3	3
Science	2 (1 lab)	3 (2 lab)
Social Studies	3	3
Occupational Education	1	1
Health and Fitness	2	2
Arts	1	2 (1 can be PPR)
General Electives	4	4
World Language (or) Personalized Pathway Requirement (PPR)		2 (Both can be PPR)
Total Credits	20	24¹

Personalized Pathway Requirement: Credits required to pursue a postsecondary pathway, including completing a CTE program of study, an industry certification, or 2 or 4-year college preparatory coursework. Personalized Pathway Requirements are identified in a student's High School & Beyond Plan, and locally determined.

Occupational Education is inclusive of Career and Technical Education.

¹ Up to 2 credits can be waived locally for students who have attempted 24 credits.

RESOURCES

Information about graduation requirements can be found at: www.sbe.wa.gov/graduation.php. More information about the State Board of Education and its work can be found at www.sbe.wa.gov or by calling 360.725.6025.



**Graduation Requirements:
Three Credits of Science, Including Two Labs**

Stakeholder Concern	Options/Response
<p>Creating the capacity to offer three credits of science, including two labs, is a significant facilities challenge.</p>	<p>The proposed change will be implemented for the Class of 2019, giving districts enough time to plan and phase-in the opportunity.</p>
	<p>Most laboratory lessons and activities do not require the use of a fume hood or a Bunsen burner.</p>
	<p>Earth Science, Environmental Science, and other science disciplines could be designed as a lab science in a manner not requiring any special facility.</p>
	<p>Sharing laboratory space between science teachers, redesign of existing labs, and creative scheduling.</p>
	<p>Computer-based instructional materials are available or under development to replace traditional lab practices and activities; this has the added benefit of a potential reduction in injuries because of reduced exposure to traditional science lab components (burners, acids, sharp instruments, etc.).</p>
<p>A requirement of three credits of science makes it harder for students to attend skills centers.</p>	<p>Further development of state models of math and science course equivalencies. CTE equivalency for science is already the most common equivalency credit, but further work is needed to make access more uniform and broaden the opportunities for students.</p>
<p>A requirement of three credits of science may be more of a burden on small rural districts.</p>	<p>According to the 2013 Basic Education Compliance survey by the SBE, 51 districts (20% of K-12 districts) already require three or four credits of science. Forty-six of the 51 districts are small, with enrollments of fewer than 3,000 students.</p>

Additional Considerations:
<ul style="list-style-type: none"> • The Next Generation Science Standard’s emphasis on scientific practices and inquiry aligns with expanded opportunities in laboratory science. • All of the 19 states plus D.C. that have College and Career Ready Graduation Requirements, according to Achieve, require three or four credits of science. Overall, 33 states require 3 or more credits of science.



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Comparison of Washington Class of 2016 Graduation Requirements to States that have College and Career Ready Graduation Requirements											
State	Type of CCR Graduation Requirements	English Language Arts	Mathematics	Social Studies	Science	Health and Physical Education**	Arts	Occupational / Career***	Electives	Other Credits	Total Credits
Washington		4	3	3	2	2	1	1	4		20
Alabama	Minimum opt-out	4	4	4	4	1.5	0.5		5.5	0.5 of Technology	24
Arizona	Personal modification opt-out	4	4	3	3		1		7		22
Arkansas	Minimum opt-out	4	4	3	3	1	0.5			0.5 of Oral Communications	16
Delaware	Mandatory	4	4	3	3	1.5		3	3.5		22
District of Columbia	Mandatory	4	4	4	4	1.5	0.5		3.5	2 of World Language, 0.5 of Music	24
Georgia	Mandatory	4	4	3	4	1		3	4		23
Michigan	Personal modification opt-out	4	4	3	3	1	1				16
Mississippi	Personal modification opt-out	4	4	4	4	1	1		5	1 of Technology	24
New Mexico	Personal modification opt-out	4	4	3.5	3	1		1	7.5		24
North Carolina	Personal modification opt-out	4	4	4	3	1			6		22
Ohio	Minimum opt-out	4	4	3	3	1			5		20
Tennessee	Mandatory	4	4	3	3	1.5	1		3	2 of World Language, 0.5 of Personal Finance	22
Hawaii*	Mandatory	4	3	4	3	1.5		2	6	0.5 of Personal Finance	24
Kentucky	Mandatory	4	3	3	3	1	1		7		22
Minnesota*	Mandatory	4	3	3.5	3		1		7		21.5
Nebraska*	Mandatory	4	3	3	3				7		20
Oklahoma	Minimum opt-out	4	3	3	3		1		6	3 of World Language or Computer Technology	23
South Dakota	Personal modification opt-out	4	3	3	3	1	1	1	5.5	0.5 of Personal Finance	22
Utah	Personal modification opt-out	4	3	3	3	2		3	6		24
Indiana****	Minimum opt-out	4	3	3	3	1.5		2.5	3		20

Why Compare Washington to States with College and Career Ready Graduation Requirements?

Besides Washington, the states shown above have not only adopted CCSS/CCR academic content standards but also established requirements that all high school graduates must complete a CCR curriculum that includes at least mathematics through the content typically taught in an Algebra II course (or its equivalent) and four years of grade-level English to earn a high school diploma. According to Achieve, college and career readiness means that a high school graduate has the knowledge and skills in English and mathematics necessary to qualify for and succeed in entry-level, credit-bearing postsecondary coursework without the need for remediation -- or put another way, a high school graduate has the English and math knowledge and skills needed to qualify for and succeed in the postsecondary job training and/or education necessary for their chosen career (i.e. community college, university, technical/vocational program, apprenticeship, or significant on-the-job training).

Type of CCR Graduation Requirements:

Mandatory: graduation requirements that specify a CCR course of study that all students must complete. This approach does not offer "opt-out" provisions that allow students to receive a diploma without having met requirements that reach the CCR level.

Default with minimum diploma opt-out: graduation requirements that specify a CCR course of study into which all students are automatically enrolled in the 9th grade but allow students with parents' permission to pursue a different state defined diploma with a less demanding set of requirements, such as the minimum diploma.

Default with personal curriculum opt-out: graduation requirements that specify a CCR course of study into which all students are automatically enrolled in the 9th grade but allow students with parents' permission to modify (i.e., lessen) the requirements — typically in mathematics or science — on an individual basis and still earn the same diploma as those who complete the CCR course of study.

Footnotes

*Minnesota and Nebraska have adopted these graduation requirements for the Class of 2015. Hawaii has adopted these graduation requirements for the class of 2016.

**Health and Physical Education have been merged for the purpose of this analysis. Some states separate health from physical education.

***Occupational/career graduation requirements are often flexible to accommodate both CTE students and students planning on four-year degrees. Georgia can be CTAE (w/ agriculture) and/or Modern Language/Latin and/or Fine Arts. Hawaii can be World Language, Fine Arts, or CTE. Indiana has "Directed Electives" in World Language, Fine Arts, or Career-Technical. South Dakota requires CTE, Capstone/Service Learning, or World Language. Utah requires 3 credits of "Directed Coursework" comprised of 1.5 credits of fine arts, 1 credit of CTE, and .5 credits of computer technology.

****Indiana uses semester credits. For the purpose of this analysis, Indiana's Core 40 credits have been converted so that Indiana credits are comparable to credits used by other states.



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Comparison of Current Washington Graduation Requirements to States that have College and Career Ready Graduation Requirements

State	Mathematics	Science
Washington	3	2
Alabama	4	4
Arizona	4	3
Arkansas	4	3
Delaware	4	3
District of Columbia	4	4
Georgia	4	4
Michigan	4	3
Mississippi	4	4
New Mexico	4	3
North Carolina	4	3
Ohio	4	3
Tennessee	4	3
Hawaii*	3	3
Kentucky	3	3
Minnesota*	3	3
Nebraska*	3	3
Oklahoma	3	3
South Dakota	3	3
Utah	3	3
Indiana**	3	3

Footnotes

*Minnesota and Nebraska have adopted these graduation requirements for the Class of 2015. Hawaii has adopted these graduation requirements for the class of 2016.

**Indiana uses semester credits. For the purpose of this analysis, Indiana's Core 40 credits have been converted so that Indiana credits are comparable to credits used by other states.