

GRADUATION REQUIREMENTS UPDATE

BACKGROUND

The SBE has several initiatives in process that are related to graduation requirements: meaningful high school diploma policy work regarding the culminating project and high school and beyond plan, Core 24 work plan, follow-up to the 2008 SBE Transcript Study, the world languages competency-based credit project, and the development of a rigorous third credit of math that builds on selected Algebra II standards and career and technical education applications.

Culminating Project and High School and Beyond Plans: Draft Proposals from Meaningful High School Diploma Advisory Work Group

After discussion over several meetings, the Meaningful High School Diploma Advisory Work Group considered and revised the culminating project and high school and beyond plan draft proposals. Both proposals differ from current policy in two ways:

1. Each explicitly connects the two requirements.
2. Each prescribes specific content to increase consistency in implementation across districts.

While the culminating project proposal does not explicitly state connections to basic education learning goals three and four¹, those goals are implicitly addressed. Both proposals leave assessment of the requirements to the discretion of the districts.

Culminating Project² Proposal

1. All students shall be required to complete a project or series of projects for graduation that is related to the student's post-high school goals and interests per their high school and beyond plan.
2. The project(s) shall include a portfolio, a presentation, and a product. The project(s) may also include, for example: a research or reflective paper, community service, job shadowing, internship, or other components deemed appropriate by the district.
3. The project(s) shall demonstrate the application of core academic skills and learning competencies from each of the following categories:
 - Learning and innovation skills (creativity and innovation, critical thinking and problem-solving, communication and collaboration).

¹ (3) Think analytically, logically, and creatively, and to integrate different experiences and knowledge to form reasoned judgments and solve problems; and (4) Understand the importance of work and finance and how performance, effort, and decisions directly affect future career and educational opportunities.

² Culminating Project current rule: (i) *Each student shall complete a culminating project for graduation. The project shall consist of the students demonstrating both their learning competencies and preparations related to learning goals three and four. Each district shall define the process to implement this graduation requirement, including assessment criteria, in written district policy. (WAC 180-51-066)*

- Information, media and technology skills.
 - Life and career skills (flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, leadership and responsibility, perseverance).
4. Assessment of skills and successful completion of the project shall be determined by the local school district.

High School and Beyond Plan³ Proposal

All students shall be required to complete a personally-relevant high school and beyond plan that includes reflective practice and shall include documentation (evidence) of a student's:

1. Personal interests and career goals.
2. Four-year plan for course-taking that is related to the student's interests and goals.
3. Research on postsecondary training and education related to one's career interest, including comparative information on the benefits and costs of available choices.
4. Budget for postsecondary education or training and life based on personal and career interest.
5. Participation in a postsecondary site visit(s).
6. Completion of an application for postsecondary education and training.
7. Completion of a resume.

The student's post-high school goals and interests, as expressed in the high school and beyond plan, shall become the basis for the student's culminating project.

Next Steps

By fall 2010, staff will reach out to the principals', superintendents', school directors', and counselors' associations to elicit feedback about the proposed changes, and will work with the Office of Superintendent of Public Instruction (OSPI) to analyze the fiscal impact on districts. The SBE may want to consider changes to the culminating project and high school and beyond plan within the overall context of Core 24 policy revisions.

Core 24 Work Plan

The preliminary draft report⁴ of the Quality Education Council (QEC) recommends that the QEC work plan for 2010 should focus on a variety of topics, including two closely related to Core 24:

- Increased instructional hours as required under ESHB 2261.
- Opportunity for 24 credits for graduation, based on SBE recommendations.

The SBE's representation on the QEC assures that key SBE initiatives will be voiced. The Core 24 Implementation Task Force (ITF) will meet January 11, February 5, and March 15, 2010 to complete its work.

Key checkpoints for the intersection of the work of the SBE, ITF, QEC, OSPI, and the Legislature are:

- Winter/spring 2010—work proactively with stakeholders on supporting the vision of Core 24: better prepare students for postsecondary success.

³ High school and beyond plan current rule: *Each student shall have an education plan for their high school experience, including what they expect to do the year following graduation.*(WAC 180.51.066)

⁴ <http://www.k12.wa.us/QEC/pubdocs/PreliminaryDraftQECProposal.pdf> (December 1, 2009)

- May 2010—SBE begins to review the ITF recommendations and consider policy changes.
- Spring/summer/fall 2010—OSPI prepares fiscal analysis of proposed changes.
- Fall 2010—SBE reviews draft Core 24 graduation requirement rules.
- Winter 2011—SBE forwards proposed Core 24 graduation requirement changes to legislature with OSPI fiscal impact statements.
- Summer 2011—SBE adopts Core 24 graduation requirement rules (assuming funding begins).

Transcript Study Follow-up

The SBE asked the BERC Group to conduct two follow-ups to the review⁵ of 14,875 students who graduated in 2008 from 100 schools in 100 districts across Washington. The first follow-up produced a series of research briefs that organized the data by academic subject area (e.g., mathematics, English, etc.), groups (e.g., seniors, low-income), race and ethnicity (e.g., African Americans, Hispanics, etc.), and topics of interest (e.g., alternative high schools, scheduling, failures, etc.).

Some of these briefs dive more deeply into the original data to provide new information; others extract the original data from the 60-page report and package it in a short form that makes it more accessible. An example of a brief can be found in Attachment A. The briefs will be showcased on the SBE website.

The second follow-up study looks at the connections between students' postsecondary and high school course-taking by analyzing data from students in the original transcript study who pursued postsecondary study in the year following graduation from high school. Specifically, it asked:

1. What is the difference in high-school course-taking patterns between students who enroll in two-year vs. four-year colleges?
2. What course-taking patterns predict enrollment in a two-year and four-year college?
3. What are the math and English course-taking patterns for students in the community, technical colleges and four-year systems who took remedial, college-level or no math in the year after high school? When did they last take math or English in high school, and at what level?
4. What math do students take at the high school and at the community and technical colleges while in a dual enrollment program?
5. What is the relationship between the level of math students take in high school and the students' declared purpose for enrolling in a community and technical college in the first year? (e.g., transfer, workforce—program of study/career cluster, etc.)
6. Of the students who take three or more career and technical education credits in high school, what is their declared purpose for enrolling in a community and technical college in the first year?

The BERC Group will discuss the analysis of the data completed to date at the January meeting; the full report will be available in late January.

⁵ http://www.sbe.wa.gov/documents/SBETranscriptStudy2008_FINAL.pdf

World Languages Competency-based Credit Project

SBE, OSPI, and WSSDA staff continue to collaborate on refining draft procedural language to guide districts interested in creating processes for students to earn competency-based credit in world languages. Staff will bring forward a draft at the March, 2010 Board meeting.

Development of a Rigorous Third-Credit of Math Built on Selected Algebra II Standards and Career and Technical Education Applications

The SBE, in collaboration with OSPI and the State Board of Community and Technical College's Transition Math Project, have supported the development of a proposal for a new model course that would provide an alternative Algebra II pathway in an applied, career and technical education (CTE) context. Students opting for this course as a third credit of math might not choose to pursue a traditional pre-calculus/calculus route. However, the course could serve as a bridge to higher levels of math, should students choose to pursue them. More detail can be found under the Excellence in Math and Science tab of the Board packet.



Washington State Graduates: Course-Taking Patterns in Science

As the nature of the nation’s economy and industrial base changes, the skills necessary to enter and to be successful in the workforce have also changed. Research from the Trends in International Mathematics and Science study shows United States students lagging behind much of the world in math and science skills (Grandjour, 2008).

With the growing concern around preparing students to compete in a global economy, education leaders and policy makers have begun to recommend raising graduation requirements. From 2004 to 2008, the number of states requiring all students to take a college and work preparatory curriculum for graduation grew from zero to 20, with an additional 10 states considering increasing graduation requirements to better prepare students for college and career. (Achieve, 2004; 2009).

Washington State’s minimum graduation requirement of 19 credits is among the lowest in the nation, as are requirements for specific content areas (Education Commission of the States, 2006). Currently, 33 states require three or more science credits to graduate from high school, while Washington State requires only two, including one credit of laboratory science. However, specific subject area requirements vary by district. For science, only 46 districts exceed the state’s two credit minimum requirement (SBE database, 2008).

The Washington State Board of Education (SBE) is revising high school graduation requirements to better prepare students for career, postsecondary education, and citizenship. The proposed Core 24 graduation requirements framework, approved in July 2008 with implementation contingent on funding, is more rigorous than current Washington State graduation requirements and, in some content areas, more rigorous than minimum college admission standards set by the Washington Higher Education Coordinating (HEC) Board (see Table 1). In 2008, students were required to

take two science credits, one of them lab, to graduate from high school. This requirement would increase to three science credits, two of them labs, with the implementation of Core 24 (see Table 1).

Table 1.
Comparison of Washington State High School Science Graduation Requirements with Four-year Public College Admission Requirements

Subject	2008 WA State Requirements	2008 HEC Board Requirements	Core 24 Default Requirements
Science	2*	2*	3**

*Including at least one year of laboratory science (HEC Board requirements will increase to two years of laboratory science beginning with students entering college in the summer of 2010)

**Including at least two years of laboratory science

Note: The Core 24 default college and career ready requirements align with the Higher Education Coordinating Board minimum college admissions requirements. Some students may choose an alternative Core 24 pathway. In some subject areas, such as science, the proposed Core 24 requirements exceed HEC Board requirements.

Prior to proposing new requirements, the SBE commissioned a transcript study. Researchers from The BERC Group examined course-taking patterns for 14,875 students who graduated in 2008 from 100 schools in 100 districts across Washington. This research brief, with an emphasis on science, is one in a series of research briefs. More information about the study can be obtained at http://www.sbe.wa.gov/documents/SBETranscriptStudy2008_FINAL.pdf.

This study was conducted to provide a baseline of information that would inform the SBE's graduation requirements initiative. The proposed Core 24 requirements were not in place for the class of 2008, and students were not trying to meet these requirements.

The results show differences in the percentage of students meeting the minimum science graduation credit requirements, HEC Board minimum admissions requirements, and the proposed Core 24 default college and career ready requirements (see Figure 1). Results show 94.1% met current graduation requirements, 87.6% met 2008 HEC Board requirements for science, and 54.6% of students met Core 24 requirements for science. (The 2008 HEC Board requirements specified only one credit of lab; those requirements will change to two lab credits in 2010.)

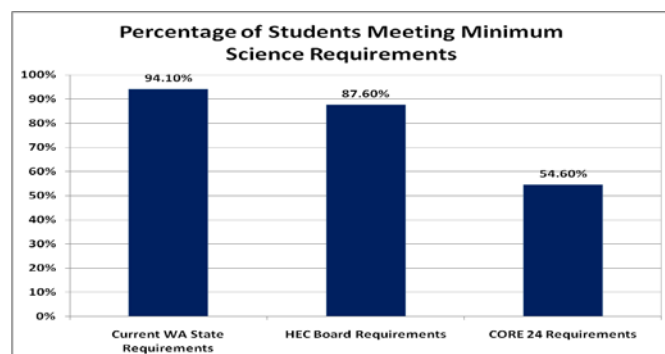


Figure 1. Percentage of Students Meeting Minimum Science Requirements

It is noteworthy that 5.9% of students did not meet current minimum Washington State science graduation requirements. These students failed to take one credit of a designated laboratory science. State law does not permit lab science classes to be waived. The remaining 6.5% of students who did not meet HEC Board requirements took cross credited classes in Career and Technical Education, such as agriculture and horticulture. While these courses met minimum graduation requirements, they did not always align with the HEC Board criteria.

Further analyses show many students took laboratory sciences. In total, 78.4% of students took at least two laboratory sciences (see Figure 2). This finding suggests that many students did not meet Core 24 requirements in science because they took fewer than three credits—not because they did not take two lab sciences.

An analysis of schedules shows that the majority of students took science in the freshmen and sophomore year, with fewer taking science in their junior and senior years. For example, only 47.9% of students took science in their senior year. Typically, students took physical science or integrated science their freshman year and biology in the second year. Among students who pursued additional science, juniors tended to take chemistry and seniors tended to take physics.

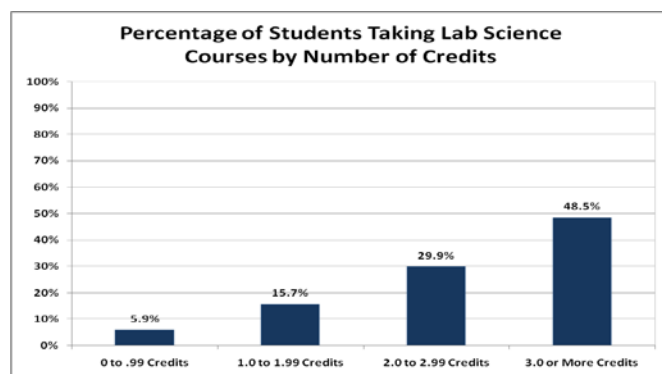


Figure 2. Percentage of Students Taking Lab Science Credits

Course level was also important. Students who completed two credits of science, including one laboratory credit (level 3) by the second year of high school were significantly ($p < .001$) more likely to meet standard on the WASL than students who completed less than two credits but one laboratory credit (level 2) or fewer than one laboratory credit (see Figure 3).

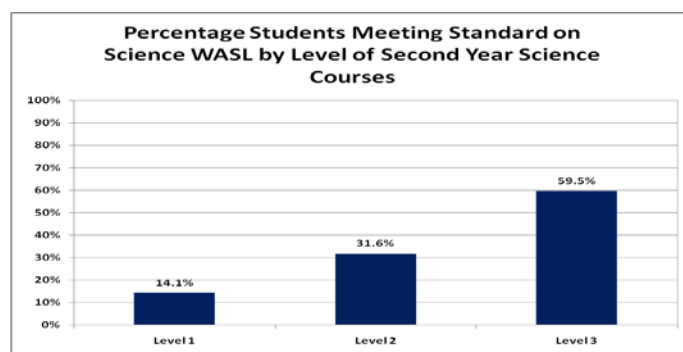


Figure 3. Percentage of Students Meeting Standard on Science WASL by Level of Second Year Science Courses

References:

Achieve Inc. (2004). *The expectations gap: A 50-state review of high school graduation requirements*. Washington, DC: Achieve, Inc.

Achieve Inc. (2009). *Closing the expectations gap: An annual 50-state progress report on the alignment of high school policies and the demands of college and careers*. Washington, DC: Achieve, Inc.

For more information go to www.bercgroup.com

Gandjour, A. (2008). What drives U.S. competitiveness in mathematics and science? *Educational Studies*, 34, 269-270.

SBE database (2008).

<http://www.sbe.wa.gov/documents/Copy%20of%20Graduation%20Requirements%20Database%202010.xls>