

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/HB 543 High School Science Assessment

SPONSOR(S): PreK-12 Policy Committee

TIED BILLS: **IDEN./SIM. BILLS:**

	REFERENCE	ACTION	ANALYST	STAFF DIRECTOR
Orig. Comm.:	PreK-12 Policy Committee	11 Y, 2 N, As CS	Brock	Ahearn
1)				
2)				
3)				
4)				
5)				

SUMMARY ANALYSIS

The Committee Substitute (CS) for House Bill 543 provides that beginning in the 2010-2011 school year, students entering grade 9 are required to earn one credit in Biology I, or a series of equivalent courses that have been approved by the State Board of Education (SBE), in order to graduate from high school.

The CS replaces the existing Grade 11 Science FCAT with an end-of-course assessment in Biology I at the high school level. In order to give DOE time to produce a statewide, standardized end-of-course assessment in biology the CS includes a phased implementation schedule:

2010-2011 School Year:

- The Grade 11 Science FCAT will be administered for the last time.
- The biology end-of-course assessment will be administered as a field test.

2011-2012 School Year:

- The Grade 11 Science FCAT is discontinued.
- The end-of-course assessment in biology replaces the comprehensive assessment of science given at the high school level.
- Each student’s performance on the end-of-course assessment constitutes 30 percent of the student’s final course grade.

2012-2013 School Year and thereafter:

- The end-of-course assessment in biology is administered in high school.
- Students must earn a passing score on the end-of-course assessment in biology in order to pass the course and receive course credit.

The CS requires that high school grades include student performance on the biology end-of-course assessment, which replaces student performance on the Grade 11 Science FCAT, beginning in the 2011-2012 school year.

The CS does not appear to create a fiscal impact on school districts or local governments. The Department of Education estimates an offsetting neutral fiscal impact. (See FISCAL COMMENTS section of this analysis.)

HOUSE PRINCIPLES

Members are encouraged to evaluate proposed legislation in light of the following guiding principles of the House of Representatives

- Balance the state budget.
- Create a legal and regulatory environment that fosters economic growth and job creation.
- Lower the tax burden on families and businesses.
- Reverse or restrain the growth of government.
- Promote public safety.
- Promote educational accountability, excellence, and choice.
- Foster respect for the family and for innocent human life.
- Protect Florida's natural beauty.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background:

No Child Left Behind Act of 2001

The federal No Child Left Behind (NCLB) Act of 2001 reauthorized and substantially revised the Elementary and Secondary Education Act of 1965 which provides federal funds to states and school districts for economically disadvantaged students.¹ The NCLB act requires each state to adopt challenging academic content and student achievement standards that apply to all public schools and students in the state.² The academic content standards are required to:

- Define coherent and rigorous academic content in mathematics, reading or language arts, and science;³
- Specify the knowledge and skills that all students are expected to know and be able to do; and
- Encourage the teaching of advanced skills.⁴

Florida's NCLB state accountability plan states that the *Sunshine State Standards* serve as the state's academic content standards.⁵ The NCLB act requires each state to implement high-quality annual student academic assessments in, at a minimum, mathematics, reading or language arts, and (beginning with the 2007-2008 school year) science.⁶ Florida's NCLB state plan uses the Florida Comprehensive Assessment Test (FCAT) as its academic assessment for purposes of the NCLB act.⁷

¹ *No Child Left Behind Act of 2001*, Pub. L. No. 107-110, 115 Stat. 1425 (Jan. 8, 2002), 20 U.S.C. § 6311, available at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107_cong_public_laws&docid=f:publ110.107.pdf.

² 20 U.S.C. § 6311(b)(1)(A)&(B).

³ 20 U.S.C. § 6311(b)(1)(C).

⁴ 20 U.S.C. § 6311(b)(1)(D)(i).

⁵ Florida Department of Education, *Florida NCLB Consolidated State Application Accountability Workbook (State Accountability Plan)*, 57-58 (June 8, 2008), available at <http://www.ed.gov/admins/lead/account/stateplans03/flcsa.pdf>; see §§ 1000.21(7) & 1003.41, F.S.

⁶ 20 U.S.C. § 6311(b)(3)(A).

⁷ See *supra* note 5 and accompanying text.

Sunshine State Standards

The *Sunshine State Standards* establish core curricula and benchmarks for student achievement. The State Board of Education is reviewing the *Sunshine State Standards* and replacing them with *Next Generation Sunshine State Standards* to better align curriculum, assessments, graduation requirements, and postsecondary success.⁸

High School Graduation Requirements

Students must earn credits in required high school courses to graduate from high school. There are three options for high school graduation: a traditional 24-credit/4-year option, an accelerated 18-credit/3-year College Preparatory Program option, and an accelerated 18-credit/3-year Career Preparatory Program option.⁹ Each of the high school graduation options require 3 science credits to graduate, 2 of which must have a laboratory component.

Students must also pass the Grade 10 FCAT in reading and mathematics and or attain concordant scores on either the SAT or the ACT tests. The Grade 11 FCAT Science assessment is not required to graduate.

Student Assessment

The Florida Comprehensive Assessment Test (FCAT) measures student achievement in grades 3 through 11 using benchmarks from the *Sunshine State Standards*.¹⁰ Testing and reporting schedules are required to be published two years in advance of testing. The FCAT consists of criterion-referenced tests in reading, writing, mathematics, and science.¹¹ Reading and mathematics are tested annually in grades 3 through 10. Writing and science are tested once at the elementary, middle, and high school levels.¹² Students take the FCAT Science test in grades 5, 8, and 11.¹³

Achievement scores on FCAT reading, mathematics, and science are reported using five achievement levels. One (1) is the lowest achievement level and 5 is the highest achievement level. The cut scores used on the Grade 11 FCAT Science to differentiate the 5 levels are as follows:¹⁴

Grade	Level 1	Level 2	Level 3	Level 4	Level 5
11	100--278	279--323	324--379	380--424	425--500

End-of-course assessments for subject areas may be administered in addition to the comprehensive assessments. An end-of-course assessment must be rigorous, statewide, standardized, and developed or approved by the Department of Education (DOE).¹⁵ The DOE indicates that it is in the final stages of adopting a new contract for the development and administration of the next generation of FCAT

⁸ Section 1003.41 (1), F.S.

⁹ Sections 1003.428, 1003.429, & 1003.43., F.S.

¹⁰ Section 1008.22(3), F.S.

¹¹ Section 1008.22(3)(c)2., F.S. A criterion-referenced test (CRT) is an assessment in which an individual's performance is compared to a specific learning objective or performance standard and not to the performance of other students. CRTs show how well students performed on specific goals or standards rather than just telling how their performance compares to a norm group of students nationally or locally. The FCAT is based on the *Sunshine State Standards* and measures student progress toward meeting these standards. Florida Department of Education, *FCAT Handbook: A Resource for Educators*, 5 (2005), available at <http://fcat.fldoe.org/handbk/complete.pdf>.

¹² Section 1008.22(3), (c), F.S.

¹³ Rule 6A-1.09422(3)(a), F.A.C.

¹⁴ Rule 6A-1.09422(5)(c), F.A.C.

¹⁵ Section 1008.22(3)(c), F.S.

assessments. The new contract includes new science assessments aligned to the *Next Generation Sunshine State Standards*, including both a comprehensive assessment of science and a science end-of-course exam. These new assessments are planned for implementation in the 2011-2012 school year.¹⁶

High School Grades

School grades were established by the A+ Plan in 1999 to assess school performance. Since then, high school performance grades have gradually changed. Prior to the 2009-2010 school year, a school's grade, including a high school's grade, was based on a combination of:

- Student achievement scores, including achievement scores for students seeking a special diploma;
- Student learning gains as measured by annual FCAT assessments in grades 3 through 10; and
- Improvement of the lowest 25th percentile of students in the school in reading, mathematics, or writing on the FCAT, unless these students are exhibiting satisfactory performance.¹⁷

By not later than the 2009-2010 school year, learning gains for students seeking a special diploma, as measured by an alternate assessment tool must be included in the learning gains component. Also, beginning in the 2009-2010 school year, 50 percent of a high school's grade will remain based upon the elements described above. The other 50 percent of a high school's grade will be based on additional valid data as follows:

- The high school graduation rate;
- As valid data becomes available, the performance and participation of the school's students in College Board Advanced Placement courses, International Baccalaureate courses, dual enrollment courses, and Advanced International Certificate of Education courses, and the students' achievement of industry certification, as determined by the Agency for Workforce Innovation in a career and professional academy;
- Postsecondary readiness of the school's students as measured the SAT, ACT, or the common placement test;
- The high school graduation rate of at-risk students who scored at Level 2 or lower on the grade 8 FCAT Reading and Mathematics examinations;
- As valid data becomes available, the performance of the school's students on statewide standardized end-of-course assessments; and
- The growth or decline in the components listed above from year to year.¹⁸

Additionally, student assessment data used in determining school grades include the aggregate scores of all eligible students enrolled in the school who have been assessed on the FCAT.

The Science FCAT results were included in school grades beginning in 2007.¹⁹ By DOE rule, one point for each percent of students who score at achievement levels 3, 4, or 5 is awarded toward school grades for students who take the FCAT Science test in Grade 11.²⁰

Currently there are not any statewide, standardized end-of-course examinations being administered.

¹⁶ Department of Education Bill Analysis on House Bill 543, February 9, 2009, page 1.

¹⁷ Section 1008.34(3)(b)1., F.S.

¹⁸ Section 1008.34(3)(b)2., F.S.

¹⁹ Section 1008.34(3)(b)1.a., F.S.; Rule 6A-1.09981(5)(a),(6) & (8), F.A.C.

²⁰ Rule 6A-1.09981(8), (a), F.A.C.

Effect of Proposed Changes:

High School Graduation Requirements

The committee substitute provides that beginning in the 2010-2011 school year, students entering grade 9 are required to earn one credit in Biology I, or a series of equivalent courses that have been approved by the State Board of Education (SBE), for general or accelerated graduation.

Student Assessment

The committee substitute replaces the existing Grade 11 Science FCAT with an end-of-course assessment in Biology I, or series of courses that have been approved by the SBE as equivalent to Biology I, at the high school level. In order to give DOE time to produce a statewide, standardized end-of-course assessment in biology aligned with *Next Generation Sunshine State Standards* and in compliance with the No Child Left Behind Act, the committee substitute includes a phased implementation schedule. The scheduled phase-in of the end-of-course assessment and phase-out of the Grade 11 Science FCAT is as follows:

2010-2011 School Year:

- The Grade 11 Science FCAT will be administered for the last time.
- The biology end-of-course assessment will be administered as a field test.

2011-2012 School Year:

- The Grade 11 Science FCAT is discontinued.
- The end-of-course assessment in biology replaces the comprehensive assessment of science given at the high school level.
- Each student's performance on the end-of-course assessment constitutes 30 percent of the student's final course grade.

2012-2013 School Year and thereafter:

- The end-of-course assessment in biology is administered in high school.
- Students must earn a passing score on the end-of-course assessment in biology in order to pass the course and receive course credit.

The Department of Education (DOE) explains the need for a phase-in schedule as follows:

The specified timeline allows the Department to recommend achievement levels and a passing score to the State Board of Education on the biology end-of-course assessment in a manner consistent with the professional Standards for Educational and Psychological Testing. In summary, the Standards call for two data collections that can only occur at the end of the course when the data being collected will be representative of the data that will follow in subsequent years. The first data collection is referred to as the field test (2010-2011 in this case), and it is for the purpose of "trying out" the test items. The second data collection is referred to as the baseline (which will occur in 2011-2012), and it is for the purpose of collecting baseline data for use in setting the achievement levels with the involvement of Florida educators and other stakeholders. By the 2012-2013

school year, achievement levels and a passing score will be approved for use with students participating in the biology end-of-course assessment.²¹

High School Grades

The committee substitute requires that high school grades include student performance on the biology end-of-course assessment, which replaces student performance on the Grade 11 Science FCAT, beginning in the 2011-2012 school year.

B. SECTION DIRECTORY:

Section 1. Amends s. 1003.428, F.S., listing the revised general requirements for high school graduation. Beginning in the 2010-2011 school year, students entering grade 9 are required to earn one credit in Biology I, or a series of equivalent courses, in order to graduate.

Section 2. Amends s. 1003.429, F.S., providing accelerated high school graduation options. Beginning in the 2010-2011 school year, students in the accelerated high school graduation program are required to earn one credit in Biology I, or a series of equivalent courses, in order to graduate.

Section 3. Amends s. 1008.22, F.S., providing for a student assessment program for public schools and removing the requirement for the administration of a comprehensive assessment of science at the high school level, beginning in the 2011-2012 school year. An end-of-course assessment in biology at the high school level is required beginning with the 2010-2011 school year.

Section 4. Amends s. 1008.34, F.S., requiring inclusion of the biology end-of-course assessment data in determination of school grades beginning in the 2011-2012 school year.

Section 5. Provides an effective date of July 1, 2009.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

The committee substitute does not appear to affect state government revenues.

2. Expenditures:

The committee substitute does not appear to affect state government expenditures.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

The committee substitute does not appear to affect local government revenues.

2. Expenditures:

The committee substitute does not appear to affect local government expenditures.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

²¹ Department of Education Bill Analysis on Proposed Committee Substitute for House Bill 543, February 27, 2009, page 3.

D. FISCAL COMMENTS:

The DOE estimates the annual cost to administer an end-of-course examination developed by the department is approximately \$1.5 million, or about \$13.76 per student. This cost is based on the current contract provider cost quote and the current 2008-2009 enrollment in Biology I (109,026 students).²² In 2010 there will be overlap while the biology end-of-course examination is field-tested in conjunction with the administration of the grade 11 Science FCAT. Discontinuing the Grade 11 Science FCAT in 2011 will offset the cost of implementing the Biology end-of-course examination from 2011 onward. Further, DOE indicates that since the department is in the final stages of signing a new FCAT development and administration contract that includes both the administration of FCAT Science and the field test of a biology end-of-course assessment in 2010-2011, there will be no additional costs to the department to implement the requirements of this proposed committee substitute over those included in the pending contract.²³

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. The proposed committee substitute does not appear to require a city or county to expend funds or to take any action requiring expenditures; reduce the authority that municipalities or counties had as of February 1, 1989, to raise revenues in the aggregate; or reduce the percentage of state tax shared with counties or municipalities as of February 1, 1989.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

There is no new rulemaking authority but the State Board of Education may adopt rules under the existing statute.²⁴

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/COUNCIL OR COMMITTEE SUBSTITUTE CHANGES

The differences between the Committee Substitute (CS) and House Bill 543 are as follows:

- House Bill 543 discontinues the Florida Comprehensive Assessment Test in science administered to students in grade 11 at the end of the 2008-2009 school year. The CS extends the discontinuation date for the Grade 11 Science FCAT to the 2011-2012 school year.
- House Bill 543 requires the science assessment administered at the high school level shall be one or more end-of-course assessments for use as end-of-course examinations beginning with the 2009-2010 school year. The CS provides for a high school biology end-of-course assessment to be field tested in 2010-2011 and implemented in 2011-2012. During the transition year 2011-2012, the biology end-of-course assessment is 30% of the student's course grade and required for

²² Department of Education Bill Analysis on House Bill 543, February 9, 2009, page 2.

²³ Department of Education Bill Analysis on Proposed Committee Substitute for House Bill 543, February 27, 2009, page 2.

²⁴ Section 1001.02(1), F.S.

graduation. Beginning in 2012-2013, the biology end-of-course assessment must be passed for course credit and graduation.

- House Bill 543 requires content knowledge and skills assessed by an end-of-course examination to be aligned to the core curricular content established in the *Sunshine State Standards*. The proposed CS provides that the biology end-of-course assessment is aligned to the *Next Generation Sunshine State Standards*.
- The CS requires the biology end-of-course assessment to be included in the calculation of school grades.