Mathematics and STEM Education in Florida

UPDATES to the FCTM Board

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Bureau Information

- New Name- Bureau of Standards and Instructional Support (BSIS)
- New Chief- Dr. Steven Neely
- New Director of STEM/6-12 Science Specialist- Dr. Jonathan P. Keener
- New K-5 Mathematics/Science Specialist- Heidi Brennan
- New K-12 Social Studies Specialist- Ashley Palelis



The name was once the Bureau of Instruction and Innovation (BII) and then transitioned to the Bureau of Curriculum and Instruction (BCI). Because the Florida Department of Education (FDOE) does not mandate curriculum, it was decided to once again change the name of the bureau. Regardless, the url is still http://www.fldoe.org/bii.

Dr. Steven Neely is the Bureau Chief. Ann Whitney is the Director of Standards. Katrina Figgett is the Director of Instructional Support. Penny Taylor is the Director of Healthy Schools.

As a side note, Dr. Denise Barrett is the K-12 Director of Standards Implementation. As another side note... The Bureau of School Improvement, which houses those on the Differentiated Accountability team, also has changes that could affect you. At the 2014 Florida Organization of Instructional Leaders (FOIL) Conference, Sam Foerster, Deputy Chancellor of Student Achievement and School Improvement, shared that the name "SIP Online" will be changing to Continuous Improvement Management System (CIMS). The online application will be growing to support much more than just school improvement plans. As their planning processes become more efficient, integrated, and data driven, the focus will shift to implementation, fidelity, and effectiveness.

Distributing Information

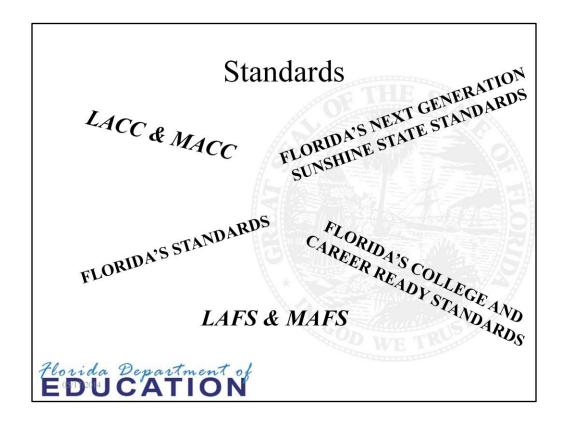
- Contact Lists
- District Supervisors



The area of STEM in our bureau has not only a district supervisor contact list but also an "others in the field" list. We cannot speak for the other specialists, but if you don't receive updates and would like to do so, e-mail me, and I will add you to a contact list.

We consistently receive questions from the field. We have no problem sharing information, as that is an integral part of fostering communication. Regardless, one of the first questions asked is "Have you contacted your district supervisor?"

Why do we ask that? Each district has different policies, and answering questions that are "in the weeds" might send mixed messages and further confuse those in the field.



Current statute says "Next Generation Sunshine State Standards", but when referring specifically to CCSS, it states "Next Generation Sunshine State Standards (Common Core)." As session just ended and though we await the governor's signature to solidify bills, current bills on the governor's desk state, "'Next Generation Sunshine State Standards' means the state's public K-12 curricular standards" adopted under s. 1003.41.

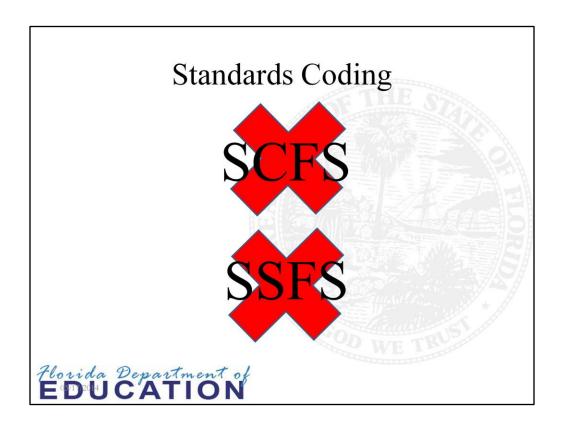
Regardless, CC stands for Common Core, and FS stands for Florida Standards. A CPALMS update is in progress, but the alpha-numeric coding will continue to have five placeholders. Some of you have noticed on CPALMS that some standards say MAFS while the majority still say MACC that you're used to seeing. The State Board of Education approved LAFS and MAFS for the new coding; the updated, deleted, and new standards; and the 2014-2015 course descriptions.

BUT...

Anyone who has a FAMS secure login can access the 2014-2015 mathematics course descriptions. Regardless, another detail will be changed. (slide 8)

FURTHERMORE...

None of this should change the goal- quality instruction. Don't get side-tracked with the changes that won't make a difference to instruction.



Yes, they are all Florida Standards, but please be careful! The "FS" code was only attached to the ELA and mathematics coding. The other content areas will keep their coding. Science will remain SC. Social Studies will remain SS, and so forth and so on...

LAFS Changes

Updated- 9 standards

Deleted- 0 standards

New- 4 standard



The State Board of Education approved the standards changes at the February 18th meeting. Details can be found at http://www.fldoe.org/eduaccsummit.asp. The Rule will take effect on March 25th (possible protesting over).

Wording was changed/added to 9 standards for clarity. No standards were deleted, but there were 4 newly created standards.

The new standards have an *a* as the 5th place holder in order not to mess up any of the clusters. They can be seen on CPALMS at http://www.cpalms.org/Public/search/Search. Click *CCSS: English Language Arts.* Make sure that ONLY *Show Subject* and *Show Grade* are checked. Then choose the appropriate grade level. Remember, the standard with *a* as the 5th place holder is the new standard.

The updated standards can be seen on CPALMS at http://www.cpalms.org/Public/search/Search. Type *lafs* as the keyword.

Ten K-5 courses (9 ELA and 1 SS) are affected by these changes. Thirty-one 9-12 ELA courses are affected.

MAFS Changes

Updated- 24 standards

Deleted- 2 standards

New- 8 standards

Kept NGSSS- 52 standards



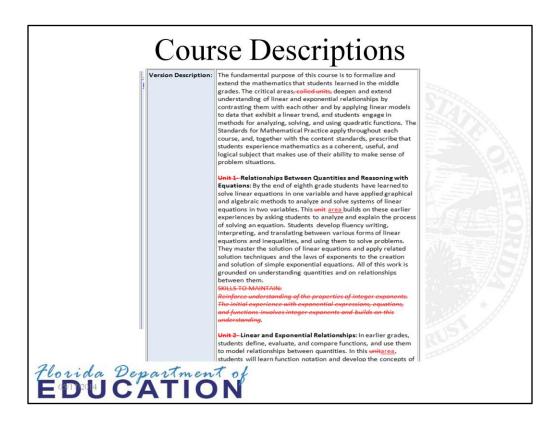
The State Board of Education approved the standards changes at the February 18th meeting. Details can be found at http://www.fldoe.org/eduaccsummit.asp. The Rule will take effect on March 25th.

Wording was changed/added to 24 standards for clarity. Two standards were deleted, one of which was moved to a new grade level becoming a new standard in that grade. There were 8 newly created standards. Some say that there are 60 newly created standards because they are combining the 8 with 52, but those 52 are NGSSS (2007) standards that have been kept from the calculus strand. The wording was not changed in any way. They need to be kept in order for Pre-Calculus and Calculus to still be offered.

The new standards have an *a* or a *b* as the 5th place holder in order not to mess up any of the clusters. They can be seen on CPALMS at http://www.cpalms.org/Public/search/Search. Click *CCSS: Mathematics*. Make sure that ONLY *Show Subject* and *Show Grade* are checked. Then choose the appropriate grade level. Remember, the standard with *a* or *b* as the 5th place holder is the new standard.

The updated standards can be seen on CPALMS at http://www.cpalms.org/Public/search/Search. Type *mafs* as the keyword.

All the K-5 mathematics courses are affected by these changes. Three M/J mathematics courses (and one ESE course) are affected. Twenty-four 9-12 mathematics courses (and one ESE course) are affected, but 45 9-12 science courses are also affected.



CPALMS will not change until this school year has ended. Because of that, the 2014-2015 mathematics course descriptions were placed on the FAMS secure site.

Now that it is official that we are not using the PARCC assessment, I once again must fix the course descriptions. I am in the process of removing ALL the Remarks and Examples that specify Assessment Limits and Clarifications. Those were limits and clarifications attached to PARCC. No, Florida Item Specifications have not been released yet, but the Commissioner has issued an assessment timeline.

Mathematics Information

- Zero courses have an "EQ" code in the CCD.
- *One* course has transitioned to a semester course.
- *Two* courses are daggered and unavailable for use in 2015-2016 and thereafter.
- *Three* ESE mathematics courses were previously daggered and are unavailable for use in 2014-2015 and thereafter.



Zero

To meet the requirement of statistics or an equally rigorous mathematics course to receive the scholar designation, the fourth mathematics credit must be attained by successfully completing a Level 3 course, or a college, credit-bearing mathematics course.

One.

Analysis of Functions Honors (1201310) is the yearlong course that can no longer be used after the 2013-2014 school year.

Analysis of Functions Honors (1201315)

Two...

Why were these coursed daggered? Currently there are 6 courses, outside of those that have a blended course description, that still contain NGSSS (2007).

Liberal Arts Mathematics 1 and 2- The financial literacy standards from NGSSS have been removed from both courses, but the courses will remain. Though financial literacy is very important, that will no longer be held within the mathematics standards. New financial literacy standards will be housed with the social studies standards and placed in the economics course(s).

Pre-Calculus Honors and Calculus Honors- These courses will remain, as the 52 standards in the calculus strand of the NGSSS have become a part of Florida's Standards. Remember, wording was not changed in any way.

Advanced Algebra with Financial Applications (1200500)

Analytic Geometry (1206330) [There are no AP courses that could be substituted, but consider dual enrollment Analytic Geometry (MACX154). (http://www.fldoe.org/articulation/pdf/DEList.pdf bottom of page 7)] Though the courses can still be offered in 2014-2015, continue to address grade forgiveness. How will a student recover this grade if s/he fails the course in the 2014-2015 school year?

Three

Consumer Mathematics (1205370)

Explorations in Mathematics 1 (1205500)

Explorations in Mathematics 2 (1205510)

Science Information

- Only "BI" and "EQ" codes exist in the CCD.
- Many more courses transitioned to "EQ."
- AP Physics 1 and 2 are replacing AP Physics B.
- FCAT 2.0 Science Grade 5, FCAT 2.0 Science Grade 8, and Biology 1 EOC Assessment remain
- There has been *no movement* on new or revised science standards.

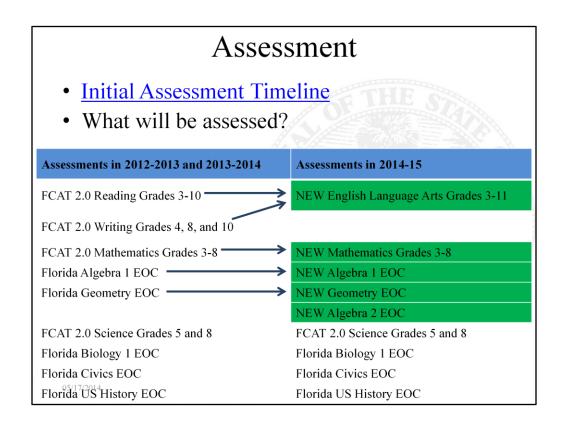


The "CH" and "PH" codes no longer exist due to statute changes based on SB1076.

The course code number for AP Physics 1 is 2003421, and the course code number for AP Physics 2 is 2003422. This can be found at http://www.fldoe.org/articulation/CCD/files/1415CCDBasic9-12.pdf in the draft 2014-2015 Course Code Directory (CCD). The CCD has been approved by the State Board of Education, but the official has not been posted.

Please visit http://www.collegeboard.org/ for information about AP courses and curriculum. The AP Physics 1 and 2 Curriculum Framework and course overviews can be accessed using the links below.

https://apstudent.collegeboard.org/apcourse/ap-physics-1 https://apstudent.collegeboard.org/apcourse/ap-physics-2



The Initial Assessment Timeline can be found at

http://floridastem.wikispaces.com/file/view/Mathematics%20timeline.pdf/506533062/Mathematics%20timeline.pdf.

- -May's work will focus on the administration schedule, transition to computer-based tests (CBT), and CBT technical specifications.
- -June's work will focus on mathematics policies and materials, draft sample test items, test design summary/blueprints, and draft test item specifications.
- -July's work will focus on rubrics for scoring writing prompts.
- -Next May's work will focus on content focus reports.

What will be assessed? See the table above, BUT there are four that will still be administered.

Algebra 1 EOC (Retake)

Geometry EOC (Retake)

FCAT 2.0 Reading Retake (Grade 10)

FCAT Mathematics Retake (Grade 10)

Side note... House Bill 7031... The Algebra 1 EOC Assessment, Geometry EOC Assessment, Algebra 2 EOC Assessment, Biology 1 EOC Assessment, US History EOC Assessment, and Civics EOC Assessment are all 30% of the student's final course grade. Only the Algebra 1 EOC Assessment must be passed in order to graduate.

Local Assessment

In Senate Bill 1642, Section 12. Subsection (6) of section 1008.22, Florida Statutes is amended to read:

1008.22 Student assessment program for public schools.—

- (6) LOCAL ASSESSMENTS.-
- (a) Measurement of student performance in all subjects and grade levels, except those subjects and grade levels measured under the statewide, standardized assessment program described in this section, is the responsibility of the school districts.
- (b) Except for those subjects and grade levels measured under the statewide, standardized assessment program, beginning with the 2014-2015 school year, each school district shall administer for each course offered in the district a local assessment that measures student mastery of course content at the necessary level of rigor for the course. As adopted pursuant to State Board of Education rule, course content is set forth in the state standards required by s. 1003.41 and in the course description. Local assessments may include:
- Statewide assessments.
- 2. Other standardized assessments, including nationally recognized standardized assessments.
- 3. Industry certification assessments.
- 4. District-developed or district-selected end-of-course assessments
- Teacher-selected or principal-selected assessments
- (c) Each district school board must adopt policies for selection, development, administration, and scoring of local assessments and for collection of assessment results. Local assessments implemented under subparagraphs (b)4. and 5. may include a variety of assessment formats, including, but not limited to, project-based assessments, adjudicated performances, and practical application assignments. For all English Language Arts, mathematics, science, and social studies courses offered in the district that are used to meet graduation requirements under s. 1002.3105, s. 1003.4281, or s. 1003.4282 and that are not otherwise assessed by statewide, standardized assessments, the district school board must select the assessments described in subparagraphs (b)1.-4.



- -Statewide assessments will be ELA for grades 3-11; Mathematics for grades 3-8, Algebra 1, Geometry, and Algebra 2; FCAT 2.0 for grades 5 and 8 in Science; Biology 1 EOC; Civics EOC; and US History EOC. Remember to think about all the courses that trigger each assessment.
- -Other standardized assessments, including nationally recognized standardized assessments, refers to AP, IB, and AICE assessments.
- -If the course does not "trigger" one of the above culminating assessments or an industry certification assessments, a district-developed, district-selected, teacher-selected, or principal-selected assessment must be administered.

Part (d) and (e) of this amended statute go on to describe support and schedules.

- -Support is the Item Bank Test Platform (IBTP). It should be released this summer. There are four more live demonstrations next week for administrators and four for teachers.
- -Schedules should be approved by the district school board and be reported to the FDOE by October 1 of each year.

PERT

- Who is tested?
- What are the cut scores?
- What if the cut score is not met?

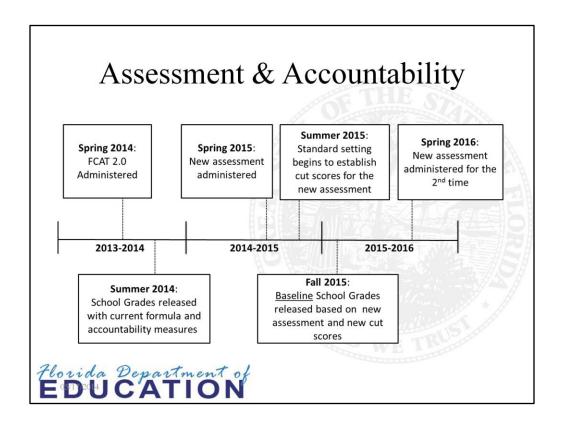
"The high school shall use the results of the test to advise the students of any identified deficiencies and to provide 12th grade students, and require them to complete, appropriate postsecondary preparatory instruction before high school graduation."



- -students who score a level 2, 3, or 4 on the Algebra 1 EOC Assessment, no matter the grade level in which it was taken
- -If the student already has a college-ready score on another assessment the PERT would not be required.
- -The PERT concordant score is 114 in mathematics. The college-ready score in mathematics on the Accuplacer is 72. It is 440 on the SAT and 19 on the ACT.
- -If a student does not meet the PERT concordant score or one of the additional college-ready scores in mathematics, the student will have to take either Mathematics for College Readiness or Mathematics for College Success for remediation.

http://www.fldoe.org/fcs/pert.asp http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=1 000-1099/1008/Sections/1008.30.html

(3) The State Board of Education shall adopt rules that require high schools to evaluate before the beginning of grade 12 the college readiness of each student who scores Level 2 or Level 3 on grade 10 FCAT Reading or the English Language Arts assessment under s. 1008.22, as applicable, or Level 2, Level 3, or Level 4 on the Algebra I assessment under s. 1008.22. High schools shall perform this evaluation using results from the corresponding component of the common placement test prescribed in this section, or an alternative test identified by the State Board of Education. The high school shall use the results of the test to advise the students of any identified deficiencies and to provide 12th grade students, and require them to complete, appropriate postsecondary preparatory instruction before high school graduation. The curriculum provided under this subsection shall be identified in rule by the State Board of Education and encompass Florida's Postsecondary Readiness Competencies. Other elective courses may not be substituted for the selected postsecondary mathematics, reading, writing, or English Language Arts preparatory course unless the elective course covers the same competencies included in the postsecondary mathematics, reading, writing, or English Language Arts preparatory course.



Senate Bill 1642 provides the framework for the updated school accountability system- a simplified, more transparent school grading system designed to promote college and career

ready students using the new Florida Standards.

The current system will remain in place through the end of 2013-14 school year when FCAT 2.0 (Reading, Writing and Mathematics) expires. When Florida students take the new assessment for the first time, student performance level expectations ("cut scores") will not yet exist. Student performance level expectations will first be set in the summer immediately following the first administration of the new assessment. There will then be a new baseline calculation of School Grades in fall 2015, which accurately reflects student performance on the new standards and assessments, not simply a statistical link back to old expectations. This baseline, informational approach in the first year, provides everyone—parents, schools, districts, the general public — a clear understanding of a student's and a school's starting point on the new, more rigorous standards and assessments—truth in advertising. It is this baseline performance that must be apparent and upon which schools must build to improve the outcomes for all Florida students.

Legislative Update

- Meetings
- Presentation
- Implementation Overview
- Review Book



- -There is one more legislative update meeting on Monday, May 19th, from 2:00–4:00 pm (Central Time) at the WISE Center Training Room located at 555 Walton Road, DeFuniak Springs, FL 32433. Hopefully you were able to join yesterday's webinar. Please contact the Governmental Relations Office by phone at (850) 245-0507 or e-mail at Legislation@fldoe.org if you would like to inquire if the webinar was recorded and will be posted on the FDOE Governmental Relations site.
- -The legislative update presentation highlights legislation passed during the 2014 Legislative Session and can be found at http://www.fldoe.org/gr/pdf/2014LegUpdatePresentcolor.pdf.
- -The legislative implementation overview chart represents the legislative bills that have passed during the 2014 legislative session that affect and/or have an impact on education. Included in this chart is a link to the final bill text/Chapter law and the FDOE bill summary (if available). Located under the Additional Information section is FDOE contact information and other FDOE notifications/documents related to that legislation. This document represents bills passed by the Florida Legislature during the 2014 Legislative Session and the action taken by the Governor. This thirteen-page chart can be found at http://www.fldoe.org/gr/pdf/2014DOELegislativeOverviewChart.pdf.
- -The legislative review book contains summaries of education-related legislation, passed during the 2014 Legislative session and can be found at http://www.fldoe.org/gr/pdf/LegislativeReview2014.pdf.
- -All Technical Assistance Papers (TAPs) should be released by June 30, 2014.



We can do this!!!!!

We Can Do This, Florida!

- State Farm
- Florida Education Foundation
- K-5 MAFS Initiative
- 12 videos



State Farm contributed \$100,000 to promote Florida Standards. State Farm partnered with the Florida Education Foundation and the Florida Department of Education to create short videos, starring Florida teachers, to spread the word that our students can do this. Our teachers can do this too!

"Great teachers make great schools," said State Farm Senior Vice President Jim Thompson. "This commitment will help provide vivid examples of the Florida Standards to teachers across the state, allowing them to push students to achieve more." The video series is titled, "We Can Do This, Florida!" and will focus on kindergarten through fifth grade mathematics standards. They are being created as a resource for teachers, parents, and postsecondary students in teacher education programs. The series is expected to be released and distributed in the fall of 2014.

Side note... Social Studies has *caught the bug*. Two Civics videos are in the works, funded through another organization.

Bridge Event

- Improving Mathematics Instruction Research Alliance within the REL-SE at FSU
- FRACTIONS research to practice
- face to face and satellite sites



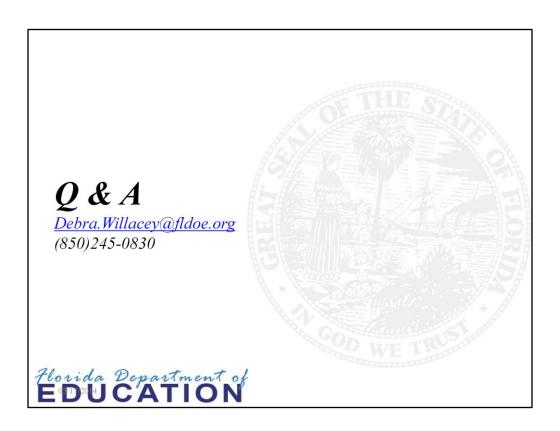
The Improving Mathematics Instruction Research Alliance within the REL-SE (Regional Educational Laboratory Southeast at FSU) has put together a bridge event for this summer. This workshop is geared towards 1) presenting information on the evidence supporting the instructional practices for teaching fractions to students; 2) engaging in interactive activities that also include working through common misconceptions; 3) connecting the activities to the first part of the lesson study cycle; 4) addressing recommendations in a developed Practice Guide on Fractions; and 5) discussing what a Practice Guide is and how it can be used.

This event is the first of hopefully many more to come! This initial research to practice event is targeting all teachers (including ESE and ESOL) who teach mathematics in the range of grades 3-5. The premise is to have a primary and remote site. The first scheduled date is Tuesday, June 24th, from 1-4:30 p.m. The primary site will be in Jacksonville with satellite sites in Tallahassee and Tampa. This event will be repeated on Thursday, June 26th, again from 1-4:30 p.m. The primary site will be in Miami with a satellite site in Orlando. Each location will be capped at 120 participants, to keep things manageable.

We will be having a conference call with the district supervisors on Tuesday, May 20th. Then registration will open and be on a first-come-first-serve basis.



If you're ever in doubt or want information about what is happening in all the content areas, visit the Bureau's website. The Bureau tries to create newsletters each month. When a newsletter is compiled, it is posted on the site under the *Resources* link on the left. The May 2014 newsletter is posted.



E-mail and/or call anytime!