

New requirements for math, science may cut electives

State wrestles with how students will be able to squeeze it all in

By JANET ELLIOTT

Copyright 2006 Houston Chronicle Austin Bureau

AUSTIN - A new law requiring high school students to take a fourth year of math and science could reduce their opportunities to take fine arts and other electives unless state education officials increase the total number of credits required for graduation.

The State Board of Education grappled Thursday with how to implement the new math and science requirements adopted by the Legislature earlier this year during a special session on school finance. The more rigorous curriculum will apply to students entering high school in the fall of 2007 who are following the state's recommended or distinguished graduation plans.

The recommended plan is considered the default for high school students. With parental permission, they can opt for a less challenging course of study known as the minimum graduation plan.

In other action, the board moved forward on writing a new curriculum for English language arts and reading courses for all grades. The 15-member elected board decided to overhaul the learning standards, which have been criticized for being vague and failing to emphasize basic grammar and writing skills. The new standards won't be ready until mid-2007.

The goal of the tougher high school math and science curriculum is to make students more ready for college or the work force. Nearly half of Texas students entering college now must take remedial classes.

Art and music teachers called on the board to increase the number of credits from 24 to 26 so that students will be more likely to include electives in their schedules. The instructors said those courses, which include fine arts and journalism, often are the ones that keep students interested in school.

"As you build your cathedral of math and science, do not use the precious stones of electives," said T. Richard Cheatham, dean of fine arts and communications at Texas State University.

The board must decide which courses to approve for the new math and science requirements. It will make its final decisions at meetings later in the year.

Advocates of earth science asked that a senior-level earth and space science course be approved for the fourth course after students take required biology, chemistry and physics classes.

"Texas depends more than any other state economically on earth science," said Scott Tinker of the University of

Texas Bureau of Economic Geology.

After several business leaders said a popular integrated physics and chemistry course isn't tough enough, several board members said they would like to do away with it and require a full year of both chemistry and physics.

Supporters of more computer science education said it could be a good choice for a fourth math course. But other speakers said the fourth math class should be a high-level discipline such as trigonometry or calculus.

One school principal said he thinks districts will have difficulty hiring qualified teachers and building new science labs. Ray Rabroker Jr., a principal in the Chilton Independent School District, said he had trouble filling two science positions this year.

There was widespread support from business leaders for a tougher curriculum to help students succeed after high school.

"Curriculum is a better indicator of post-secondary success than socioeconomic status, standardized test scores or high school GPA," said Jamie Story, education-policy analyst for the Texas Public Policy Foundation, a free-market think tank.

Board member Dan Montgomery, R-Fredericksburg, said he thinks the new law may prompt more students to follow the minimum plan, which requires three years of math and two years of science.

janet.elliott@chron.com

[HoustonChronicle.com](http://www.HoustonChronicle.com) -- <http://www.HoustonChronicle.com> | [Section: Houston & Texas](#)
This article is: <http://www.chron.com/disp/story.mpl/metropolitan/4029961.html>