
Science, Technology, Engineering, & Mathematics (STEM) Course Standards

The Background:

Rules, Regulations, and Minimum Standards of the State Board of Education 0520-01-03-.05(1) calls for the State Board of Education to adopt curriculum standards for each subject area, grades K-12. The approved standards are to be the basis for planning instructional programs in each local school system. Adopted textbooks are also to be aligned with the state curriculum standards. Section 3.205 Approved High School Courses of the State Board of Education Policy identifies those courses which have been approved by the Board for instruction across the state.

The Department of Education's Division of Career and Technical Education (CTE) is proposing changes to approved course standards in the Science, Technology, Engineering & Mathematics (STEM) career cluster. This item includes a new course within this career cluster that is aligned to postsecondary pathways, incorporates added instructional rigor by embedding Common Core State Standards for English Language Arts & Literacy in Technical Subjects, and reflects the competitive employment demands of our state.

The addition of this course provides students a foundation in GIS systems, which are integral to the collection, analysis, and use of various types of geographical data. This will increase student opportunities to learn about geographical information to complement revised social studies standards while also providing STEM training that is embedded with expectations of Common Core State Standards for English Language Arts & Literacy in Technical Subjects.

Courses included in this item:

Introduction to Geographical Information Systems (GIS)	New course
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Since first reading of the standards included in this item, the CTE Division has critically reviewed and accepted feedback from STEM educators, CTE Directors, and industry experts received via the CTE.Questions@tn.gov email address and during eight meetings with CTE teachers held in all three grand divisions. The following changes have been made to *Introduction to Geographical Information Systems (GIS)* course standards since first reading, based on that feedback:

- Revised language and added better examples in order to more realistically capture the kinds of activities students might engage in when taking this course.
- Added a standard to cover file management techniques in different software environments.
- Made slight formatting updates for consistency across documents.

The Recommendation:

The Department of Education recommends adoption of this item on final reading. The SBE staff concurs with this recommendation.