

TENNESSEE CAREER AND TECHNICAL EDUCATION TEXTBOOK SCREENING INSTRUMENT
Sections I & III Reviews

Book:	Agricultural Mechanics: Fundamentals & Applications	Publisher:	Cengage Learning Inc.
ISBN:	9781305468474	Year:	2015
Levels/Course:	Basal	Category:	5944

BEFORE YOU BEGIN

ALIGNMENT TO THE TENNESSEE CAREER AND TECHNICAL EDUCATION STANDARDS:

Tennessee's Career and Technical Education Standards (hereafter, "the standards") represent a significant shift in the definition of student proficiency within career and technical education environments. Evaluators of materials should understand that the standards replace the proficiency frameworks of years past in three major respects:

- 1) A shift to clear, specific, and measurable expectations for student learning. The standards articulate deep knowledge and skill attainment, departing from the competency-based structure of years past.
- 2) Increased focus on rigor in literacy and mathematics within technical contexts. The new standards align to all Tennessee State Standards for English Language Arts and Literacy in Technical Subjects and, where appropriate, select Tennessee State Standards in Mathematics.
- 3) Sequential progression of knowledge and skills within and across courses. The new standards build on each other both within course content and across course levels, arranged within programs of study that culminate in capstone and/or work-based learning experiences for students.

Evaluators of materials must be well versed in the standards for the course(s) aligned to the materials in question, how the content fits into the progressions in the content standards, and the expectations of the standards with respect to conceptual understanding, fluency, and technical application. Aligned courses in the Architecture & Construction Career Cluster:

ORGANIZATION OF THIS DOCUMENT

SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY

Section II includes additional criteria for alignment to the standards as well as indicators of quality.

SECTION III: FOCUS AREA (*optional*)

Section III allows reviewers to capture qualitative observations on an additional area of focus, if presented in the materials.

**For the purposes of this document, Tennessee CTE students are considered to be enrolled in course "levels" (i.e., Level 1, Level 2, Level 3, and Level 4) due to variation in the grade level at which students may take a course. For example, a tenth-grade student may be enrolled in a Level 1 course. For this reason, reviewers are asked to evaluate materials on the basis of their alignment to particular *course levels*, not *grade levels* or *grade bands*.*

***This percentage is a guide. Reviewers should not attempt to compute percentages based on counting pages or counting lessons. Reviewers will use their professional judgment to determine how students are meant to spend their time to determine focus and provide evidence for their decision.*

Section II(1). ADDITIONAL ALIGNMENT CRITERIA	SCORE	JUSTIFICATION/NOTES
<p>A. Materials are aligned to relevant national and/or industry standards where appropriate. For example, <i>Mechatronics I</i> materials routinely make reference to and reinforce connections with national industry certification standards from companies like Siemens.</p>	2	<p>This text is an outstanding source of industry standards. It actually does as good of a job as any text I have seen. Many aspects from small engine, to electrical, and various woodworking aspects are up to code with industry standards, and readers can expect to be up to date with the expectations of industry professionals.</p>
<p>B. Materials are aligned to discipline-specific content or pedagogical frameworks frequently used by professionals in associated industries. For example, <i>Differentiating Instruction</i> materials routinely make reference to and reinforce connections with instructional strategies that meet the educational needs of the student, as specified in the standards.</p>	2	<p>As mentioned before, the content of this text is very well covered and very well aligned with the standards from the state of TN. It does so in a way which allows the reader a variety of ways to further understand the content.</p>
<p>C. Connections are made to discipline-specific professional societies and organizations, and their value is clearly communicated in the materials. For example, <i>School Counseling</i> materials routinely make reference to and reinforce connections with the American School Counselor Association (ASCA).</p>	2	<p>While I would have liked to have seen more of this clearly stated in the text, it did do a sufficient job in allowing the reader to have a good idea about professional organizations within the agriculture mechanics industry. It made numerous references to various organizations and helped the reader understand the</p>

		industry expectations for professionals in the field.
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Additional Comment Section II(1):

Section II(2). SEQUENCE AND PROGRESSION OF STANDARDS	SCORE	JUSTIFICATION/NOTES
A. Connections are made within a course between knowledge and skills, where these connections are appropriate and natural, as set forth by the standards.	2	This text does an extraordinarily good job at allowing the reader to apply the knowledge into various skills from the text. It has numerous pages dedicated to specific projects where the reader can put their knowledge into action. Throughout each chapter, it also has several sections which allow the user to further dive into the information by practicing in to advance their knowledge
B. Materials are vertically coherent with previous courses and these connections are made clear in the materials. The connections are explicit to the other materials in the course.	2	This is an introductory course into the pathway; however, it is an excellent text to offer that introduction. It also allows the user a knowledge base that will allow them to

		further their knowledge into the next class.
C. For materials in a series, content progressions reflect the progressions as seen in the standards. These progression connections are clearly indicated in the materials. Any discrepancies in content progressions enhance the required learning in each course and are clearly aimed at helping students meet the standards as written.	2	The text is put together in a way that allows the user to consistently build upon the knowledge from the previous chapter. When each chapter begins, you can clearly see how the reader can apply the knowledge from the previous chapter to something new from the current chapter.

Section II(3). TEACHER SUPPORTS	SCORE	JUSTIFICATION/NOTES
A. Materials support teachers in ways such as the following: planning (including ideas for pacing), sample lessons, laboratory applications, projects, vocabulary, and instructional strategies.	0	materials not bid
B. Materials include teacher-directed materials that explain the role of the practice activities in the classroom and in students' content development. Problems and activities present opportunities for students to make use of and exhibit the skills as they work on mastery of content.	0	materials not bid
C. Opportunities and resources are provided for teachers to conduct independent study to enhance their own understanding and knowledge of course topics. Materials provide avenues to seek and identify quality professional development in a manner that will support student learning.	0	materials not bid

Section II(4). USABILITY	SCORE	JUSTIFICATION/NOTES
A. Materials can be accessed in a variety of formats and media, including but not limited to printed textbooks, digital storage devices, online applications, and cloud-based forums.	2	Online formats are available for the user to access. It also allows the user to gain new content through an online version which can allow the student to further apply the knowledge and reinforce the information in a different setting.
B. Materials are clear and easy to read for students, teachers, and parents. The design and graphics do not distract from the course content and are appropriately placed.	2	The text is appropriately placed and the graphics allow the user a visual to understand the material being covered. This is especially important in a mechanics course where the students often learn by visuals and can better understand the material when it isn't just simple words on a page.
C. Materials include supports for all learners, e.g., ELs, students who are below grade level, advanced students.	2	I believe the text does an adequate job at this. This course is unique in that it offers a variety of ways for students to apply their knowledge beyond simple knowledge based assessments. While it may

		not be explicitly stated, the educator can use the text to help students below/advanced to further apply the knowledge.
D. Materials are culturally and politically sensitive to the full range of potential users, and do not advance unwarranted opinions that are not factually based. All materials strive to present content, not beliefs.	2	

Please note any concerns with sensitivity below:

Section II(5). ASSESSMENTS	SCORE	JUSTIFICATION/NOTES
A. Materials include aligned assessments at regular intervals throughout the text(s), or as supplements to the primary instructional materials. Aligned assessments may include end-of-chapter quizzes, unit test modules, and practice exams.	2	Each chapter has a variety of assessments at the end of the chapter. It also has checkpoints in each chapter which allows the user to apply what they're learning.
B. Materials offer ideas and guidance on measuring student progress throughout the duration of the aligned course(s). Formative, interim, and summative assessment strategies are all presented to inform instructional strategy and improvement.	2	I believe this text does an adequate job. Again, its not explicitly stated that an assessment is occurring, however, each student can do a quick knowledge check based off of the graphics in each chapter.

C. Materials include assessment accommodations for diverse learners, including sample items that capture multiple measures of student proficiency.	2	Students can apply the knowledge in a number of diverse ways. While some students may learn well by simple information regurgitation, it also provides others a more advanced way to apply their knowledge through shop projects, classroom projects and other instances.
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Please use the space below to leave any additional notes about Section II not previously captured:

SECTION III (optional): FOCUS AREA

Use this section to capture qualitative observations on an additional area of focus, if presented in the materials. A sample focus area for the Health Informatics program of study is provided in the following. If applicable, fill in the blank table with observations and notes.

III. EXAMPLE: FOCUS IN Health Information Systems	NOTES
A. Materials include coverage of major parameters most frequently reported in health databases.	<i>[Insert reviewer evaluation here.]</i>
B. Materials draw clear connections between policy and procedures and the legal ramifications of health informatics.	<i>[Insert reviewer evaluation here.]</i>
III. FOCUS AREA:	NOTES

Appendix A, Career and Technical Education: Programs of Study by Course