

**281—12.5(256) Education program.** The following education program standards shall be met by schools and school districts for accreditation with the start of the 1989-1990 school year.

**12.5(1) Prekindergarten program.** If a school offers a prekindergarten program, the program shall be designed to help children to work and play with others, to express themselves, to learn to use and manage their bodies, and to extend their interests and understanding of the world about them. The prekindergarten program shall relate the role of the family to the child's developing sense of self and perception of others. Planning and carrying out prekindergarten activities designed to encourage cooperative efforts between home and school shall focus on community resources. A prekindergarten teacher shall hold a license/certificate licensing/certifying that the holder is qualified to teach in prekindergarten. A nonpublic school which offers only a prekindergarten may, but is not required to, seek and obtain accreditation.

**12.5(2) Kindergarten program.** The kindergarten program shall include experiences designed to develop healthy emotional and social habits and growth in the language arts and communication skills, as well as a capacity for the completion of individual tasks, and protect and increase physical well-being with attention given to experiences relating to the development of life skills and human growth and development. A kindergarten teacher shall be licensed/certificated to teach in kindergarten. An accredited nonpublic school must meet the requirements of this subrule only if the nonpublic school offers a kindergarten program.

**12.5(3) Elementary program, grades 1-6.** The following areas shall be taught in grades one through six: English-language arts, social studies, mathematics, science, health, human growth and development, physical education, traffic safety, music, and visual art. Computer science instruction incorporating the standards established under rule 281—12.11(256) shall be offered in at least one grade level commencing with the school year beginning July 1, 2023.

In implementing the elementary program standards, the following general curriculum definitions shall be used.

*a. English-language arts.* English-language arts instruction shall include the following communication processes: speaking; listening; reading; writing; viewing; and visual expression and nonverbal communication. Instruction shall incorporate language learning and creative, logical, and critical thinking. The following shall be taught: oral and written composition; communication processes and skills, including handwriting and spelling; literature; creative dramatics; and reading.

*b. Social studies.* Social studies instruction shall include citizenship education, history, and social sciences. Democratic beliefs and values, problem-solving skills, and social and political participation skills shall be incorporated. Instruction shall encompass geography, history of the United States and Iowa, and cultures of other peoples and nations. American citizenship, including the study of national, state, and local government; and the awareness of the physical, social, emotional and mental self shall be infused in the instructional program.

*c. Mathematics.* Mathematics instruction shall include number sense and numeration; concepts and computational skills with whole numbers, fractions, mixed numbers and decimals; estimation and mental arithmetic; geometry; measurement; statistics and probability; and patterns and relationships. This content shall be taught through an emphasis on mathematical problem solving, reasoning, and applications; language and symbolism to communicate mathematical ideas; and connections among mathematical topics and between mathematics and other disciplines. Calculators and computers shall be used in concept development and problem solving.

*d. Science.* Science instruction shall include life, earth, and physical science and shall incorporate hands-on process skills; scientific knowledge; application of the skills and knowledge to students and society; conservation of natural resources; and environmental awareness.

*e. Health.* Health instruction shall include personal health; food and nutrition; environmental health; safety and survival skills; consumer health; family life; substance abuse and nonuse, encompassing the effects of alcohol, tobacco, drugs, and poisons on the human body; human sexuality, self-esteem, stress management, and interpersonal relationships; emotional and social health; health resources; and prevention and control of disease, and the characteristics of communicable diseases, including acquired immune deficiency syndrome.

*f. Physical education.* Physical education instruction shall include movement experiences and body mechanics; fitness activities; rhythmic activities; stunts and tumbling; simple games and relays; sports skills and activities; and water safety.

*g. Traffic safety.* Traffic safety instruction shall include pedestrian safety; bicycle safety; auto passenger safety; school bus passenger safety; seat belt use; substance education; and the application of legal responsibility and risk management to these concepts.

*h. Music.* Music instruction shall include skills, knowledge, and attitudes and shall include singing and playing music; listening to and using music; reading and writing music; recognizing the value of the world's musical heritage; respecting individual musical aspirations and values; and preparing for consuming, performing, or composing.

*i. Visual art.* Visual art instruction shall include perceiving, comprehending, and evaluating the visual world; viewing and understanding the visual arts; developing and communicating imaginative and inventive ideas; and making art.

**12.5(4) Junior high program, grades 7 and 8.** The following shall be taught in grades 7 and 8: English-language arts, social studies, mathematics, science, health, human growth and development, physical education, music, visual art, family and consumer education, career education, and technology education. Instruction in the following areas shall include the contributions and perspectives of persons with disabilities, both men and women, and persons from diverse racial and ethnic groups, and shall be designed to eliminate career and employment stereotypes. Computer science instruction incorporating the standards established under rule 281—12.11(256) shall be offered in at least one grade level commencing with the school year beginning July 1, 2023.

In implementing the junior high program standards, the following general curriculum definitions shall be used.

*a. English-language arts.* Same definition as in 12.5(3) "a" with the exclusion of handwriting.

*b. Social studies.* Social studies instruction shall include citizenship education, history and social sciences. Democratic beliefs and values, problem-solving skills, and social and political participation skills shall be incorporated. Instruction shall encompass history, economics, geography, government including American citizenship, behavioral sciences, and the cultures of other peoples and nations. Strategies for continued development of positive self-perceptions shall be infused.

*c. Mathematics.* Mathematics instruction shall include number and number relationships including ratio, proportion, and percent; number systems and number theory; estimation and computation; geometry; measurement; statistics and probability; and algebraic concepts of variables, patterns, and functions. This content shall be taught through an emphasis on mathematical problem solving, reasoning, and applications; language and symbolism to communicate mathematical ideas; and connections among mathematical topics and between mathematics and other disciplines. Calculators and computers shall be used in concept development and problem solving.

*d. Science.* Same definition as in 12.5(3) "d."

*e. Health.* Health instruction shall include personal health; food and nutrition; environmental health; safety and survival skills; consumer health; family life; substance abuse and nonuse, encompassing the effects of alcohol, tobacco, drugs, and poisons on the human body; human sexuality, self-esteem, stress management, and interpersonal relationships; emotional and social health; health resources; and prevention and control of disease and the characteristics of communicable diseases, including sexually transmitted diseases and acquired immune deficiency syndrome.

*f. Physical education.* Physical education shall include the physical fitness activities that increase cardiovascular endurance, muscular strength, and flexibility; sports and games; tumbling and gymnastics; rhythms and dance; water safety; leisure and lifetime activities.

*g. Music.* Same definition as in 12.5(3) "h" with the addition of using music as an avocation or vocation.

*h. Visual art.* Same definition as in 12.5(3) "i" with the addition of using visual arts as an avocation or vocation.

*i. Family and consumer education.* Family and consumer education instruction shall include the development of positive self-concept, understanding personal growth and development and relationships

with peers and family members in the home, school and community, including men, women, minorities and persons with disabilities. Subject matter emphasizes the home and family, including parenting, child development, textiles and clothing, consumer and resource management, foods and nutrition, housing, and family and individual health. This subrule shall not apply to nonpublic schools.

*j. Career education.* Career education instruction shall include exploration of employment opportunities, experiences in career decision making, and experiences to help students integrate work values and work skills into their lives. This subrule shall not apply to nonpublic schools. However, nonpublic schools shall comply with subrule 12.5(7).

*k. Technology education.* Technology education instruction shall include awareness of technology and its impact on society and the environment; furthering students' career development by contributing to their scientific principles, technical information and skills to solve problems related to an advanced technological society; and orienting students to technologies which impact occupations in all six of the required service areas. The purpose of this instruction is to help students become technologically literate and become equipped with the necessary skills to cope with, live in, work in, and contribute to a highly technological society. This subrule shall not apply to nonpublic schools.

*l. Secondary credit.*

(1) An individual pupil in a grade that precedes ninth grade may take a course for secondary credit if all of the following are true:

1. The pupil satisfactorily completes the course.
2. The course is taught by a teacher licensed by the Iowa board of educational examiners for grades 9 through 12 and endorsed in the subject area.
3. The course meets all components listed in subrule 12.5(5) for the specific curricular area.
4. The board of the school district or the authorities in charge of the nonpublic school have developed enrollment criteria that a student must meet to be enrolled in the course.

(2) If a student meets the requirement of subparagraph 12.5(4)“l”(1), the school district or accredited nonpublic school of enrollment shall issue high school credit for the unit to the student unless the student is unable to demonstrate proficiency or the school district or accredited nonpublic school determines that the course unit completed by the student does not meet the school district's or accredited nonpublic school's standards, as appropriate. If a student is denied credit under this paragraph, the school district or accredited nonpublic school denying credit shall provide to the student's parent or guardian in writing the reason for the denial. If credit is awarded under this paragraph, the credit must apply toward graduation requirements of the district or accredited nonpublic school.

**12.5(5) High school program, grades 9-12.** In grades 9 through 12, a unit is a course or equivalent related components or partial units taught throughout the academic year as defined in subrule 12.5(14). The following shall be offered and taught as the minimum program: English-language arts, six units; social studies, five units; mathematics, six units as specified in 12.5(5)“c”; science, five units; health, one unit; physical education, one unit; fine arts, three units; world language, four units; and vocational education, 12 units as specified in 12.5(5)“i.” Beginning with the 2010-2011 school year graduating class, all students in schools and school districts shall satisfactorily complete at least four units of English-language arts, three units of mathematics, three units of science, three units of social studies, and one full unit of physical education as conditions of graduation. The three units of social studies may include the existing graduation requirements of one-half unit of United States government and one unit of United States history.

In implementing the high school program standards, the following curriculum standards shall be used.

*a. English-language arts (six units).* English-language arts instruction shall include the following communication processes: speaking; listening; reading; writing; viewing; and visual expression and nonverbal communication. Instruction shall incorporate language learning and creative, logical, and critical thinking. The program shall encompass communication processes and skills; written composition; speech; debate; American, English, and world literature; creative dramatics; and journalism.

*b. Social studies (five units).* Social studies instruction shall include citizenship education, history, and the social sciences. Instruction shall encompass the history of the United States and the history and cultures of other peoples and nations including the analysis of persons, events, issues, and historical evidence reflecting time, change, and cause and effect. Instruction in United States government shall include an overview of American government through the study of the United States Constitution, the bill of rights, the federal system of government, and the structure and relationship between the national, state, county, and local governments; and voter education including instruction in statutes and procedures, voter registration requirements, the use of paper ballots and voting machines in the election process, and the method of acquiring and casting an absentee ballot. Students' knowledge of the Constitution and the bill of rights shall be assessed. Economics shall include comparative and consumer studies in relation to the market and command economic systems. Geography shall include the earth's physical and cultural features, their spatial arrangement and interrelationships, and the forces that affect them. Sociology, psychology, and anthropology shall include the scientific study of the individual and group behavior(s) reflecting the impact of these behaviors on persons, groups, society, and the major institutions in a society. Democratic beliefs and values, problem-solving skills, and social and political skills shall be incorporated. All students in grades nine through twelve must, as a condition of graduation, complete a minimum of one-half unit of United States government and one unit of United States history and receive instruction in the government of Iowa.

*c. Mathematics (six units).* Mathematics instruction shall include:

(1) Four sequential units which are preparatory to postsecondary educational programs. These units shall include strands in algebra, geometry, trigonometry, statistics, probability, and discrete mathematics. Mathematical concepts, operations, and applications shall be included for each of these strands. These strands shall be taught through an emphasis on mathematical problem solving, reasoning, and structure; language and symbolism to communicate mathematical ideas; and connections among mathematical topics and between mathematics and other disciplines. Calculators and computers shall be used in concept development and problem solving.

(2) Two additional units shall be taught. These additional units may include mathematical content as identified in, but not limited to, paragraphs 12.5(3) "c," 12.5(4) "c," and 12.5(5) "c"(1). These units are to accommodate the locally identified needs of the students in the school or school district. This content shall be taught through an emphasis on mathematical problem solving, reasoning, and structure; language and symbolism to communicate mathematical ideas; and connections among mathematical topics and between mathematics and other disciplines. Calculators and computers shall be used in concept development and problem solving.

*d. Science (five units).* Science instruction shall include biological, earth, and physical science, including physics and chemistry. Full units of chemistry and physics shall be taught but may be offered in alternate years. All science instruction shall incorporate hands-on process skills; scientific knowledge; the application of the skills and knowledge to students and society; conservation of natural resources; and environmental awareness.

*e. Health (one unit).* Health instruction shall include personal health; food and nutrition; environmental health; safety and survival skills; consumer health; family life; human growth and development; substance abuse and nonuse; emotional and social health; health resources; and prevention and control of disease, including sexually transmitted diseases and acquired immune deficiency syndrome, current crucial health issues, human sexuality, self-esteem, stress management, and interpersonal relationships.

*f. Physical education (one unit).* Physical education shall include the physical fitness activities that increase cardiovascular endurance, muscular strength and flexibility; sports and games; tumbling and gymnastics; rhythms and dance; water safety; leisure and lifetime activities.

All physically able students shall be required to participate in the program for a minimum of one-eighth unit during each semester they are enrolled except as otherwise provided in this paragraph. A twelfth-grade student may be excused from this requirement by the principal of the school in which the student is enrolled under one of the following circumstances:

- (1) The student is enrolled in a cooperative, work-study, or other educational program authorized by the school which requires the student's absence from the school premises during the school day.
- (2) The student is enrolled in academic courses not otherwise available.
- (3) An organized and supervised athletic program which requires at least as much time of participation per week as one-eighth unit of physical education.

Students in grades nine through eleven may be excused from the physical education requirement in order to enroll in academic courses not otherwise available to the student if the board of directors of the school district in which the school is located, or the authorities in charge of the school, if the school is a nonpublic school, determine that students from the school may be permitted to be excused from the physical education requirement.

A student may be excused by the principal of the school in which the student is enrolled, in consultation with the student's counselor, for up to one semester, trimester, or the equivalent of a semester or trimester, per year if the parent or guardian of the student requests in writing that the student be excused from the physical education requirement. The student seeking to be excused from the physical education requirement must, at some time during the period for which the excuse is sought, be a participant in an organized and supervised athletic program which requires at least as much time of participation per week as one-eighth unit of physical education.

The student's parent or guardian must request the excuse in writing. The principal shall inform the superintendent that the student has been excused.

*g. Fine arts (three units).* Fine arts instruction shall include at least two of the following:

- (1) Dance. Dance instruction shall encompass developing basic movement skills; elementary movement concepts; study of dance forms and dance heritage; participating in dance; and evaluating dance as a creative art; and using dance as an avocation or vocation.
- (2) Music. Music instruction shall include skills, knowledge, and attitudes and the singing and playing of music; listening to and using music; reading and writing music; recognizing the value of the world's musical heritage; respecting individual musical aspirations and values; preparing for consuming, performing, or composing; and using music as an avocation or vocation.
- (3) Theatre. Theatre instruction shall encompass developing the internal and external resources used in the theatre process; creating theatre through artistic collaboration; relating theatre to its social context; forming aesthetic judgments; and using theatre as an avocation or vocation.
- (4) Visual art. Visual art instruction shall include developing concepts and values about natural and created environments; critiquing works of art; evaluating relationships between art and societies; analyzing, abstracting, and synthesizing visual forms to express ideas; making art; and using visual art as an avocation or vocation.

*h. World language (four units).* The world language program shall be a four-unit sequence of uninterrupted study in at least one language, which may include American Sign Language. World language instruction shall include listening comprehension appropriate to the level of instruction; rateable oral proficiency; reading comprehension appropriate to the level of instruction; writing proficiency appropriate to the level of instruction; and cultural awareness.

All high schools shall offer and teach the first two units of the sequence. The third and fourth units must be offered. However, the department of education may, on an annual basis, waive the third and fourth unit requirements upon the request of the board. The board must document that a licensed/certificated teacher was employed and assigned a schedule that would have allowed students to enroll, that the class was properly scheduled, that students were aware of the course offerings, and that no students enrolled.

*i. Vocational education—school districts (three units each in at least four of the six service areas).* A minimum of three sequential units, of which only one may be a core unit, shall be taught in four of the following six service areas: agricultural education, business and office education, health occupations education, home economics education, industrial education, and marketing education. The instruction shall be competency-based; shall provide a base of knowledge which will prepare students for entry level employment, additional on-the-job training, and postsecondary education within their chosen field; shall be articulated with postsecondary programs of study, including apprenticeship

programs; shall reinforce basic academic skills; shall include the contributions and perspectives of persons with disabilities, both men and women, and persons from diverse racial and ethnic groups. Vocational core courses may be used in more than one vocational service area. Multioccupations may be used to complete a sequence in more than one vocational service area; however, a core course(s) and multioccupations cannot be used in the same sequence. If a district elects to use multioccupations to meet the requirements in more than one service area, documentation must be provided to indicate that a sufficient variety of quality training stations be available to allow students to develop occupational competencies. A district may apply for a waiver if an innovative plan for meeting the instructional requirement for the standard is submitted to and approved by the director of the department of education.

The instructional programs also shall comply with the provisions of Iowa Code chapter 258 relating to vocational education. Advisory committee/councils designed to assist vocational education planning and evaluation shall be composed of public members with emphasis on persons representing business, agriculture, industry, and labor. The membership of local advisory committees/councils will fairly represent each gender and minority residing in the school district. The accreditation status of a school district failing to comply with the provisions of this subrule shall be governed by 281—subrule 46.7(10), paragraph “g.”

(1) A service area is the broad category of instruction in the following occupational cluster areas (definitions are those used in these rules):

(2) “Agricultural education programs” prepare individuals for employment in agriculture-related occupations. Such programs encompass the study of applied sciences and business management principles, as they relate to agriculture. Agricultural education focuses on, but is not limited to, study in horticulture, forestry, conservation, natural resources, agricultural products and processing, production of food and fiber, aquaculture and other agricultural products, mechanics, sales and service, economics marketing, and leadership development.

(3) “Business and office education programs” prepare individuals for employment in varied occupations involving such activities as planning, organizing, directing, and controlling all business office systems and procedures. Instruction offered includes such activities as preparing, transcribing, systematizing, preserving communications; analyzing financial records; receiving and disbursing money; gathering, processing and distributing information; and performing other business and office duties.

(4) “Health occupations education programs” prepare individuals for employment in a variety of occupations concerned with providing care in the areas of wellness, prevention of disease, diagnosis, treatment, and rehabilitation. Instruction offered encompasses varied activities in such areas as dental science, medical science, diagnostic services, treatment therapy, patient care areas, rehabilitation services, record keeping, emergency care, and health education. Many occupations in this category require licensing or credentialing to practice, or to use a specific title.

(5) “Home economics education programs” encompass two categories of instructional programs:

1. “Consumer and family science” programs may be taught to prepare individuals for a multiple role of homemaker and wage earner and may include such content areas as food and nutrition; consumer education; family living and parenthood; child development and guidance; family and individual health; housing and home management; and clothing and textiles.

2. “Home economics occupations programs” prepare individuals for paid employment in such home economics-related occupations as child care aide/assistant, food production management and services, and homemaker/home health aide.

(6) “Industrial education programs” encompass two categories of instructional programs—industrial technology and trade and industrial. Industrial technology means an applied discipline designed to promote technological literacy which provides knowledge and understanding of the impact of technology including its organizations, techniques, tools, and skills to solve practical problems and extend human capabilities in areas such as construction, manufacturing, communication, transportation, power and energy. Trade and industrial programs prepare individuals for employment in such areas as protective services, construction trades, mechanics and repairers, precision production, transportation, and graphic communications. Instruction includes regular systematic classroom

activities, followed by experiential learning with the most important processes, tools, machines, management ideas, and impacts of technology.

(7) “Marketing education programs” prepare individuals for marketing occupations, including merchandising and management—those activities which make products and services readily available to consumers and business. Instruction stresses the concept that marketing is the bridge between production (including the creation of services and ideas) and consumption. These activities are performed by retailers, wholesalers, and businesses providing services in for-profit and not-for-profit business firms.

(8) “Sequential unit” applies to an integrated offering, directly related to the educational and occupational skills preparation of individuals for jobs and preparation for postsecondary education. Sequential units provide a logical framework for the instruction offered in a related occupational area and do not require prerequisites for enrollment. A unit is defined in subrule 12.5(18).

(9) “Competency” is a learned student performance statement which can be accurately repeated and measured. Instruction is based on incumbent worker-validated statements of learner results (competencies) which clearly describe what skills the students will be able to demonstrate as a result of the instruction. Competencies function as the basis for building the instructional program to be offered. Teacher evaluation of students, based upon their ability to perform the competencies, is an integral part of a competency-based system.

(10) “Minimum competency lists” contain competencies validated by statewide technical committees, composed of representatives from appropriate businesses, industries, agriculture, and organized labor. These lists contain essential competencies which lead to entry level employment and are not intended to be the only competencies learned. Districts will choose one set of competencies per service area upon which to build their program or follow the process detailed in 281—subrule 46.7(2) to develop local competencies.

(11) “Clinical experience” involves direct instructor supervision in the actual workplace, so that the learner has the opportunity to apply theory and to perfect skills taught in the classroom and laboratory.

“Field training” is an applied learning experience in a nonclassroom environment under the supervision of an instructor.

“Lab training” is experimentation, practice or simulation by students under the supervision of an instructor.

“On-the-job training” is a cooperative work experience planned and supervised by a teacher-coordinator and the supervisor in the employment setting.

(12) “Coring” is an instructional design whereby competencies common to two or more different vocational service areas are taught as one course offering. Courses shall be no longer than one unit of instruction. Course(s) may be placed wherever appropriate within the program offered. This offering may be acceptable as a unit or partial unit in more than one vocational program to meet the standard.

(13) “Articulation” is the process of mutually agreeing upon competencies and performance levels transferable between institutions and programs for advanced placement or credit in a vocational program. An articulation agreement is the written document which explains the decisions agreed upon and the process used by the institution to grant advanced placement or credit.

(14) “Multioccupational courses” combine on-the-job training in any of the occupational areas with the related classroom instruction. The instructor provides the related classroom instruction and coordinates the training with the employer at the work site. A multioccupational course may only be used to complete a sequence in more than one vocational service area if competencies from the appropriate set of minimum competencies are a part of the related instruction.

*j. Vocational education/nonpublic schools (five units).* A nonpublic school which provides an educational program that includes grades 9 through 12 shall offer and teach five units of occupational education subjects, which may include, but are not limited to, programs, services, and activities which prepare students for employment in business or office occupations, trade and industrial occupations, consumer and family sciences or home economics occupations, agricultural occupations, marketing occupations, and health occupations. By July 1, 1993, instruction shall be competency-based, articulated with postsecondary programs of study, and may include field, laboratory, or on-the-job training.

*k. Personal finance literacy (one-half unit).* All students shall complete at least one-half unit of personal finance literacy as a condition of graduation.

(1) The curriculum shall, at a minimum, address the following:

1. Savings, including emergency fund, purchases, and wealth-building.

2. Understanding investments, including compound and simple interest, liquidity, diversification, risk-return ratio, certificates of deposit, money market accounts, single stocks, bonds, mutual funds, rental real estate, annuities, commodities, and futures.

3. Wealth-building and college planning, including long-term and short-term investing using tax-favored plans, individual retirement accounts and payments from such accounts, employer-sponsored retirement plans and investments, public and private educational savings accounts, and uniform gifts and transfers to minors.

4. Credit and debt, including credit cards, payday lending, rent-to-own transactions, debt consolidation, automobile leasing, cosigning a loan, debt avoidance, and the marketing of debt, especially to young people.

5. Consumer awareness of the power of marketing on buying decisions including 0 percent interest offers; marketing methods, including product positioning, advertising, brand recognition, and personal selling; how to read a credit report and correct inaccuracies; how to build a credit score; how to develop a plan to deal with creditors and avoid bankruptcy; and the federal Fair Debt Collection Practices Act.

6. Financial responsibility and money management, including creating and living on a written budget and balancing a checkbook; basic rules of successful negotiating and techniques; and personality or other traits regarding money.

7. Insurance, risk management, income, and career decisions, including career choices that fit personality styles and occupational goals, job search strategies, cover letters, résumés, interview techniques, payroll taxes and other income withholdings, and revenue sources for federal, state, and local governments.

8. Different types of insurance coverage including renters, homeowners, automobile, health, disability, long-term care, identity theft, and life insurance; term life, cash value and whole life insurance; and insurance terms such as deductible, stop-loss, elimination period, replacement coverage, liability, and out-of-pocket.

9. Buying, selling, and renting advantages and disadvantages relating to real estate, including adjustable rate, balloon, conventional, government-backed, reverse, and seller-financed mortgages.

(2) One-half unit of personal finance literacy may count as one-half unit of social studies in meeting the requirements of paragraph 12.5(5) “b,” though the teacher providing personal finance literacy coursework that counts as one-half unit of social studies need not hold a social studies endorsement.

(3) Units of coursework that meet the requirements of any combination of coursework required under paragraph 12.5(5) “b,” “c,” or “h” and incorporate the curriculum required under subparagraph 12.5(5) “k”(1) shall be deemed to satisfy the offer-and-teach requirements of this paragraph, and a student who completes such units shall be deemed to have met the graduation requirement of this paragraph.

*l. Computer science (one-half unit).* Commencing with the school year beginning July 1, 2022, the one-half unit of computer science shall incorporate the standards established under rule 281—12.11(256) and may be offered online in accordance with 281—Chapter 15.

**12.5(6) Exemption from physical education course, health course, physical activity requirement, or cardiopulmonary resuscitation course completion.** A pupil shall not be required to enroll in a physical education course if the pupil’s parent or guardian files a written statement with the school principal that the course conflicts with the pupil’s religious beliefs. A pupil shall not be required to enroll in a health course if the pupil’s parent or guardian files a written statement with the school principal that the course conflicts with the pupil’s religious beliefs. A pupil shall not be required to meet the requirements of subrule 12.5(19) regarding physical activity if the pupil’s parent or guardian files a written statement with the school principal that the requirement conflicts with the pupil’s religious beliefs. A pupil shall not be required to meet the requirements of subrule 12.5(20) regarding completion of a cardiopulmonary



resuscitation course if the pupil's parent or guardian files a written statement with the school principal that the completion of such a course conflicts with the pupil's religious beliefs.

**12.5(7) Career education.** Each school or school district shall incorporate school-to-career educational programming into its comprehensive school improvement plan. Curricular and cocurricular teaching and learning experiences regarding career education shall be provided from the prekindergarten level through grade 12. Career education shall be incorporated into the total educational program and shall include, but is not limited to, awareness of self in relation to others and the needs of society; exploration of employment opportunities, at a minimum, within Iowa; experiences in personal decision making; experiences that help students connect work values into all aspects of their lives; and the development of employability skills. In the implementation of this subrule, the board shall comply with Iowa Code section 280.9.

**12.5(8) Multicultural and gender fair approaches to the educational program.** The board shall establish a policy to ensure that students are free from discriminatory practices in the educational program as required by Iowa Code section 256.11. In developing or revising the policy, parents, students, instructional and noninstructional staff, and community members shall be involved. Each school or school district shall incorporate multicultural and gender fair goals for the educational program into its comprehensive school improvement plan. Incorporation shall include the following:

*a.* Multicultural approaches to the educational program. These shall be defined as approaches which foster knowledge of, and respect and appreciation for, the historical and contemporary contributions of diverse cultural groups, including race, color, national origin, gender, disability, religion, creed, and socioeconomic background. The contributions and perspectives of Asian Americans, African Americans, Hispanic Americans, American Indians, European Americans, and persons with disabilities shall be included in the program.

*b.* Gender fair approaches to the educational program. These shall be defined as approaches which foster knowledge of, and respect and appreciation for, the historical and contemporary contributions of women and men to society. The program shall reflect the wide variety of roles open to both women and men and shall provide equal opportunity to both sexes.

**12.5(9) Special education.** The board of each school district shall provide special education programs and services for its resident children which comply with rules of the state board of education implementing Iowa Code chapters 256, 256B, 273, and 280.

**12.5(10) Technology integration.** Each school or school district shall incorporate into its comprehensive school improvement plan demonstrated use of technology to meet its student learning goals.

**12.5(11) Global education.** Each school or school district shall incorporate global education into its comprehensive school improvement plan as required by Iowa Code section 256.11. Global education shall be incorporated into all areas and levels of the educational program so students have the opportunity to acquire a realistic perspective on world issues, problems, and the relationship between an individual's self-interest and the concerns of people elsewhere in the world.

**12.5(12) Provisions for gifted and talented students.** Each school district shall incorporate gifted and talented programming into its comprehensive school improvement plan as required by Iowa Code section 257.43. The comprehensive school improvement plan shall include the following gifted and talented program provisions: valid and systematic procedures, including multiple selection criteria for identifying gifted and talented students from the total student population; goals and performance measures; a qualitatively differentiated program to meet the students' cognitive and affective needs; staffing provisions; an in-service design; a budget; and qualifications of personnel administering the program. Each school district shall review and evaluate its gifted and talented programming. This subrule does not apply to accredited nonpublic schools.

**12.5(13) Provisions for at-risk students.** Each school district shall make provision for meeting the needs of at-risk students: valid and systematic procedures and criteria to identify at-risk students throughout the school district's school-age population, determination of appropriate ongoing educational strategies for alternative options education programs as required in Iowa Code section 280.19A, and

review and evaluation of the effectiveness of provisions for at-risk students. This subrule does not apply to accredited nonpublic schools.

Provisions for at-risk students shall align with the student learning goals and content standards established by the school district or by school districts participating in a consortium. The comprehensive school improvement plan shall also include objectives, activities, cooperative arrangements with other service agencies and service groups, and strategies for parental involvement to meet the needs of at-risk children.

**12.5(14) Unit.** A unit is a course which meets one of the following criteria: it is taught for at least 200 minutes per week for 36 weeks; it is taught for the equivalent of 120 hours of instruction; it requires the demonstration of proficiency of formal competencies associated with the course according to the State Guidelines for Competency-Based Education or its successor organization; or it is an equated requirement as a part of an innovative program filed as prescribed in rule 281—12.9(256). A fractional unit shall be calculated in a manner consistent with this subrule. Unless the method of instruction is competency-based, multiple-section courses taught at the same time in a single classroom situation by one teacher do not meet this unit definition for the assignment of a unit of credit. However, the third and fourth years of a world language may be taught at the same time by one teacher in a single classroom situation, each yielding a unit of credit.

**12.5(15) Credit.** A student shall receive a credit or a partial credit upon successful completion of a course which meets one of the criteria in subrule 12.5(14). The board may award high school credit to a student who demonstrates required competencies for a course or content area in accordance with assessment methods approved by the local board.

**12.5(16) Subject offering.** Except as provided for under subrule 12.5(21), a subject shall be regarded as offered when the teacher of the subject has met the licensure and endorsement standards of the state board of educational examiners for that subject; instructional materials and facilities for that subject have been provided; and students have been informed, based on their aptitudes, interests, and abilities, about possible value of the subject.

A subject shall be regarded as taught only when students are instructed in it in accordance with all applicable requirements outlined herein. Subjects which the law requires schools and school districts to offer and teach shall be made available during the school day as defined in subrules 12.1(8) to 12.1(10).

**12.5(17) Twenty-first century learning skills.** Twenty-first century learning skills include civic literacy, health literacy, technology literacy, financial literacy, and employability skills. Schools and school districts shall address the curricular needs of students in kindergarten through grade twelve in these areas. In doing so, schools and school districts shall apply to all curricular areas the universal constructs of critical thinking, complex communication, creativity, collaboration, flexibility and adaptability, and productivity and accountability.

*a. Civic literacy.* Components of civic literacy include rights and responsibilities of citizens; principles of democracy and republicanism; purpose and function of the three branches of government; local, state, and national government; inherent, expressed, and implied powers; strategies for effective political action; how law and public policy are established; how various political systems define rights and responsibilities of the individual; the role of the United States in current world affairs.

*b. Health literacy.* Components of health literacy include understanding and using basic health concepts to enhance personal, family and community health; establish and monitor health goals; effectively manage health risk situations and advocate for others; demonstrate a healthy lifestyle that benefits the individual and society.

*c. Technology literacy.* Components of technology literacy include creative thinking; development of innovative products and processes; support of personal learning and the learning of others; gathering, evaluating, and using information; use of appropriate tools and resources; conduct of research; project management; problem solving; informed decision making.

*d. Financial literacy.* Components of financial literacy include developing short- and long-term financial goals; understanding needs versus wants; spending plans and positive cash flow; informed and responsible decision making; repaying debt; risk management options; saving, investing, and asset building; understanding human, cultural, and societal issues; legal and ethical behavior.

*e. Employability skills.* Components of employability skills include different perspectives and cross-cultural understanding; adaptability and flexibility; ambiguity and change; leadership; integrity, ethical behavior, and social responsibility; initiative and self-direction; productivity and accountability.

**12.5(18) Early intervention program.** Each school district receiving early intervention program funds shall make provisions to meet the needs of kindergarten through grade 3 students. The intent of the early intervention program is to reduce class size, to achieve a higher level of student success in the basic skills, and to increase teacher-parent communication and accountability. Each school district shall develop a class size management strategy by September 15, 1999, to work toward, or to maintain, class sizes in basic skills instruction for kindergarten through grade 3 that are at the state goal of 17 students per teacher. Each school district shall incorporate into its comprehensive school improvement plan goals and activities for kindergarten through grade 3 students to achieve a higher level of success in the basic skills, especially reading. A school district shall, at a minimum, biannually inform parents of their individual child's performance on the results of diagnostic assessments in kindergarten through grade 3. If intervention is appropriate, the school district shall inform the parents of the actions the school district intends to take to improve the child's reading skills and provide the parents with strategies to enable the parents to improve their child's skills.

**12.5(19) Physical activity requirement.** Subject to the provisions of subrule 12.5(6), physically able pupils in kindergarten through grade 5 shall engage in physical activity for a minimum of 30 minutes each school day. Subject to the provisions of subrule 12.5(6), physically able pupils in grades 6 through 12 shall engage in physical activity for a minimum of 120 minutes per week in which there are at least five days of school.

*a.* This requirement may be met by pupils in grades 6 through 12 by participation in the following activities including, but not limited to:

- (1) Interscholastic athletics sponsored by the Iowa High School Athletic Association or Iowa Girls High School Athletic Union;
- (2) School-sponsored marching band, show choir, dance, drill, cheer, or similar activities;
- (3) Nonschool gymnastics, dance, team sports, individual sports; or
- (4) Similar endeavors that involve movement, manipulation, or exertion of the body.

*b.* When the requirement is to be met in full or in part by a pupil using one or more nonschool activities, the school or school district shall enter into a written agreement with the pupil. The agreement shall state the nature of the activity and the starting and ending dates of the activity and shall provide sufficient information about the duration of time of the activity each week. The agreement shall also be signed by the school principal or principal's designee and by at least one parent or guardian of the pupil if the pupil is a minor. The pupil shall sign the agreement, regardless of the age of the pupil. The agreement shall be effective for no longer than one school year. There is no limit to the number of agreements that a school or school district may have with any one pupil during the enrollment of the pupil.

*c.* In no event may a school or school district reduce the regular instructional time, as defined by "unit" in subrule 12.5(14), for any pupil to enable the pupil to meet the physical activity requirement. However, this requirement may be met by physical education classes, activities at recess or during class time, and before- or after-school activities.

*d.* Schools and school districts must provide documentation that pupils are being provided with the support to complete the physical activity requirement. This documentation may be provided through printed schedules, district policies, student handbooks, and similar means.

**12.5(20) Cardiopulmonary resuscitation course completion requirement.** Subject to the provisions of subrule 12.5(6), at any time prior to the end of twelfth grade, every pupil physically able to do so shall have completed a psychomotor course that leads to certification in cardiopulmonary resuscitation. A school or school district administrator may waive this requirement for any pupil who is not physically able to complete the course. A course that leads to certification in CPR may be taught during the school day by either a school or school district employee or by a volunteer, as long as the person is certified to teach a course that leads to certification in CPR. In addition, a school or school district shall accept certification from any nationally recognized course in cardiopulmonary resuscitation as evidence that

this requirement has been met by a pupil. A school or school district shall not accept auditing of a CPR course, nor a course in infant CPR only. This subrule is effective for the graduating class of 2011-2012.

**12.5(21)** *Contracted courses used to meet school or school district requirements.* A school or school district may use contracted community college courses meeting the requirements of rule 281—22.8(261E) under the following conditions.

*a.* A course or courses used to meet the sequential unit requirement for career and technical education under paragraph 12.5(5) “*i.*” One or more courses in only one of the six career and technical education service areas specified in paragraph 12.5(5) “*i.*” may be eligible for supplementary weighting under the provisions of 281—subrule 97.2(5).

*b.* A course or courses comprising up to a unit of science or mathematics in accordance with paragraph 12.5(5) “*c.*” or “*d.*” Such courses may be eligible for supplementary weighting under the provisions of 281—subrule 97.2(5).

*c.* Courses offered pursuant to paragraph 12.5(21) “*a.*” or “*b.*” shall be deemed to have met the requirement that the school district offer and teach such a unit under the educational standards of this rule.

*d.* An accredited nonpublic school may use contracted community college courses to meet offer-and-teach requirements for career and technical education and math or science established under subrule 12.5(5). Such courses may be eligible for funding under rule 281—97.8(261E).

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