

CHAPTER 8710
BOARD OF TEACHING
TEACHER AND OTHER SCHOOL
PROFESSIONAL LICENSING

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8710.1250 TEMPORARY LIMITED LICENSES.

Subpart 1 **Authority to issue temporary limited licenses.** The Board of Teaching authorizes the issuance of temporary limited licenses that permit a person to teach in an area for which the person has not completed an approved preparation program that leads to licensure by the Board of Teaching

Subp 2 **Criteria for issuance.** The Board of Teaching shall grant a temporary limited license authorized by subpart 1 to an applicant if it finds that the following conditions are met

A. the designated administrator of the employing school district or charter school requests a temporary limited license according to this part,

B the designated administrator of the employing school district or charter school verifies in writing that

(1) no applicant holding a license in a subject or field for which a temporary limited license is requested can fulfill the requirements of the position,

(2) the position has been advertised, and if the position is one-half time or more, the position has been advertised statewide,

(3) the school district or charter school will provide a mentor to give support and assistance in necessary skill development for the person holding a temporary limited license,

(4) the applicant for whom the temporary limited license is requested holds a baccalaureate degree from a college or university accredited by the regional association for the accreditation of colleges and secondary schools, and

(5) the applicant has completed a college or university degree with at least a minor in the area for which teacher licensure is requested, or a degree directly related to the professional preparation for which educational speech/language pathology, school nurse, school psychologist, school social worker, or school counselor licensure is requested. An applicant for a temporary limited license as a school nurse must also provide evidence of current registration to practice as a licensed registered nurse and current registration as a public health nurse under the Board of Nursing. An applicant for a temporary limited license as a school social worker must also provide evidence of current licensure to practice as a social worker under the Board of Social Work

Subp. 2a. **Exception for temporary limited licenses for career and technical fields.** Limited licenses shall be issued for teaching career and technical fields under parts 8710 8010 to 8710 8080 to applicants who do not meet the criteria defined in subpart 2, item B, subitem (4), if the employing school district verifies that the individual has completed specific training for and at least four years of full-time employment or the

equivalent in an occupation of the employment field to be taught. Renewal of temporary limited licenses issued under this subpart must require evidence of the applicant's having completed eight semester credits toward full licensure within the previous year. All other provisions of this part apply.

Subp 3 Validity and duration of temporary limited licenses. An application for a temporary limited license must not be submitted prior to August 1 of the school year for which it is requested. A temporary limited license is issued for one school year or a portion of a school year from the date of issuance to the following June 30 and is valid for use in the requesting school district or charter school only. If the requesting school district or charter school offers summer school, a temporary limited license that expires on June 30 is valid for teaching summer school in the year of expiration of the license.

Subp 4 Number of temporary limited licenses allowed. Beginning with temporary limited licenses issued on or after October 16, 2000, no more than three temporary limited licenses shall be granted to an applicant under subpart 2 and no more than five temporary limited licenses shall be granted to an applicant under subpart 2a.

Subp 5 Exception for applicants prepared in Minnesota teacher preparation institutions. A graduate of a Minnesota teacher preparation institution who has been granted a temporary limited license under subpart 2 but has not successfully completed the skills area examination may renew the temporary limited license two times. To renew a temporary limited license an applicant must

A. provide an official score report which verifies having taken the examination during the period of each temporary limited license, and

B. provide evidence of participating in an approved remedial assistance program provided by a school district or postsecondary institution that includes a formal diagnostic component in the specific areas in which the applicant did not obtain qualifying scores during the period of each temporary limited license.

Subp 6 Exception for applicants prepared outside Minnesota. An applicant who has completed a licensure program outside Minnesota may be granted a temporary limited license under part 8710.0400.

Statutory Authority: *MS s 122A.09*

History: *26 SR 700*

8710.4525 TEACHERS OF KEYBOARDING FOR COMPUTER APPLICATIONS.

Subpart 1 Scope of practice. A teacher of keyboarding for computer applications is authorized to provide to students in grades kindergarten through 8 age-appropriate instruction that is designed to teach keyboarding knowledge, application, and skills, including keyboarding terminology, techniques, ergonomics, and appropriate fingering on computer keys, and basic computer applications, including word processing, graphics, multimedia presentations, and gathering information from electronic sources. Nothing in this part prevents a teacher of elementary education from teaching keyboarding or computer applications to the teacher's own classroom or prevents a teacher of business education from teaching keyboarding and computer applications to students at the grade levels for which the teacher is licensed as a teacher of business education. Nothing in this part prevents any teacher from teaching students to use technology applications appropriate to their curriculum nor discourages any teacher from integrating technology into curriculum and instruction.

Subp 2 Licensure requirements. A candidate for licensure endorsement to teach keyboarding for computer applications to students in grades kindergarten through 8 shall hold or qualify for a valid Minnesota classroom teaching license and must have successfully completed a Board of Teaching preparation program approved under part 8700.7600 leading to the licensure endorsement as a teacher of keyboarding for computer applications under this part.

Subp 3. Subject matter standard. A candidate for licensure endorsement as a teacher of keyboarding for computer applications in grades kindergarten through 8

must successfully complete a preparation program under subpart 2 that includes the candidate's demonstration of the knowledge and skills in items A and B

A A teacher of keyboarding for computer applications understands and applies

(1) knowledge of computers and similar technology, including hardware, software, file management, care of equipment, security, and ethical issues relating to the use of computers and technology;

(2) knowledge of keyboarding, including techniques, ergonomics, skill development, and editing, and

(3) knowledge of computer applications, including word processing, graphics, multimedia presentations, the Internet, and electronic mail

B A teacher of keyboarding for computer applications integrates knowledge of computers, keyboarding, and computer applications with understanding of pedagogy, students, learning, methods, processes of evaluation, classroom management, and professional development. The teacher must.

(1) understand the physical, social, emotional, moral, and cognitive development of students in grades kindergarten through 8,

(2) understand and apply the research base for and the best practices of teaching keyboarding and computer applications to students in grades kindergarten through 8,

(3) develop curriculum goals and purposes based on the central concepts of keyboarding and computer applications and know how to apply instructional strategies and materials for achieving student understanding of this discipline, and

(4) apply the standards under part 8710.2000 to teaching keyboarding and computer applications to students in grades kindergarten through 8 in a variety of chemical experiences.

Subp 4. **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing licensure.

Statutory Authority: *MS s 122A 09*

History: *26 SR 700*

8710.4725 TEACHERS OF READING.

Subpart 1. **Scope of practice.** A teacher of reading is authorized to facilitate and provide for grades kindergarten through 12 students instruction that is designed to develop reading skills, strategies, and comprehension. The teacher of reading is also authorized to provide assistance to teachers who have responsibility for providing reading instruction. Nothing in this rule restricts teachers of elementary education or teachers of special education from providing reading instruction to students they are licensed to teach nor restricts any other teacher from providing instruction in reading in their content areas.

Subp. 2 **Licensure requirements.** A candidate for licensure to teach reading to students in grades kindergarten through 12 shall

A hold or qualify for a professional license valid for classroom teaching in prekindergarten, adult basic education, or grades kindergarten through 6, 1 through 6, 5 through 8, 9 through 12, or kindergarten through 12, and

B. show verification of completing a Board of Teaching preparation program approved under part 8700 7600 leading to the licensure of teachers of reading including standards under subpart 3.

Subp 3. **Subject matter standard.** A candidate for licensure as a teacher of reading must complete a preparation program under subpart 2, item B, that must include the candidate's demonstration of the knowledge and skills in items A to C

A. A teacher of reading understands the reading process and the process of learning to read and can design developmentally appropriate curriculum and instructional

tion that advance students' reading proficiency and encourage them to value reading. The teacher knows and can apply research, theory, and best practices to teach and foster.

- (1) emergent reading skills such as phonemic awareness, alphabet recognition, and understanding that printed words convey meaning,
- (2) word recognition skills including phonics, blending, structural analysis, and contextual analysis,
- (3) developing an initial sight vocabulary and an increasingly larger and more complex vocabulary, mastering word-learning strategies such as the use of context and structural analysis, and developing word consciousness;
- (4) fluency and automaticity in both oral and silent reading;
- (5) comprehension and appreciation of a wide range of children's, adolescent, and adult narratives,
- (6) comprehension and learning from expository texts such as articles, essays, textbooks, technical manuals, and original documents found in a variety of disciplines and content areas in and out of school,
- (7) comprehension strategies such as adjusting reading approach, activating background knowledge, summarizing, generating questions, constructing mental representations, and self-monitoring,
- (8) understanding, remembering, valuing, and using information gained from reading in and outside of school,
- (9) higher-order thinking skills and behaviors such as thinking independently, withholding judgment, recognizing point of view and bias, and considering multiple solutions,
- (10) writing to advance reading development and learning from text, and
- (11) reading widely and independently for learning, understanding, and enjoyment

B A teacher of reading understands how to assess the reading development of individual students and groups of students, how to use assessment data to design appropriate reading curriculum and instruction based on the assessment data, and how to communicate this information to relevant audiences. The teacher of reading understands and can apply.

- (1) best practice in individual and group reading assessment,
- (2) sound principles of analysis and evaluation of individual and group reading assessment data,
- (3) sound principles in assessing, analyzing, and evaluating reading curriculum,
- (4) informed analysis for advising and implementing reading curricular and instructional decisions based on data, and
- (5) best practice in selection of strategies, materials, and instruction for students with a wide range of reading background and skills ranging from students in need of early intervention or remediation to students with exceptionally advanced reading skills and needs

C A teacher of reading integrates knowledge of reading with the teacher's understanding of pedagogy, students, learning, classroom management, and professional and instructional development and leadership. The teacher of reading must.

- (1) understand and apply educational principles relevant to the physical, social, emotional, moral, and cognitive development of children, preadolescents, and adolescents,
- (2) understand and apply the current knowledge and research-based best practices in reading education at the elementary, middle level, and high school levels and communicate these to colleagues and the wider community,

(3) understand the role and alignment of district, school, and department missions and goals in reading program planning as well as current state and federal legislation as it relates to reading,

(4) understand, provide, and model instructional strategies to improve student reading across the curriculum,

(5) know fiscal, budgetary, and purchasing practices for operating a comprehensive reading program,

(6) understand and apply the standards of effective practice in teaching students reading through a variety of early and ongoing clinical experiences with elementary, middle level, and high school students within a range of educational programming models,

(7) develop curriculum, strategies, and materials based on the knowledge that reading is the process of constructing meaning through the interaction of the reader's existing knowledge, the information suggested by the written language, and the reading context,

(8) understand and apply instructional and informational technologies and electronic resources to support literacy,

(9) be able to provide professional development that supports supplementing and improving reading instruction and curriculum, and

(10) know what resources are available from professional organizations whose mission is the improvement of literacy.

Subp 4 **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing licensure

Statutory Authority: *MS s 122A 09, 122A 18*

History: *26 SR 700*

8710.4750 TEACHERS OF SCIENCE.

[For text of subs 1 and 2, see MR]

Subp 2a. **Exception for candidates with partial science teaching qualification.** The board shall issue a license valid for teaching chemistry, earth and space science, life science, or physics in grades 9 through 12 for candidates who complete the requirements of subpart 2, items A and B, and subpart 4, 5, 6; or 7, but have not completed subpart 3. The board shall issue a license to teach all sciences in grades 5 through 8 to a candidate who has completed the requirements of subparts 2, items A and B, and 3 but has not completed subpart 4, 5, 6, or 7. Licenses issued to teach all sciences in grades 5 through 8 under this exception or as a science specialty under part 8710.3200 are not valid for teaching integrated science offerings above grade 9.

[For text of subs 3 to 9, see MR]

Statutory Authority: *MS s 122A 09, 122A 18*

History: *26 SR 700*

8710.5900 CAREER AND TECHNICAL EDUCATION ACCOMMODATION SPECIALIST FOR STUDENTS WITH DISABILITIES.

Subpart 1. **Scope of practice.** A career and technical education accommodation specialist for students with disabilities is authorized to analyze and evaluate vocational training potential, interests, and opportunities; develop career goals, transition needs, and lifework plans, coordinate appropriate career and technical education opportunities and programs; and manage plans for meeting vocational preparation of special needs students

Subp 2 **License requirements.** A candidate for licensure as a career and technical education accommodation specialist for students with disabilities shall hold a baccalaureate degree in education or special education or a baccalaureate degree in vocational rehabilitation or a graduate degree in vocational rehabilitation counseling or a graduate degree in vocational education with a special population specialization from a regional-

ly accredited college or university, and a special education license under part 8710.5100, 8710 5200, 8710 5250, 8710 5400, 8710 5600, 8710 5700, or 8710 5800, and have successfully completed a Board of Teaching preparation program approved under part 8700.7600 leading to the licensure of special education, and have successfully completed a Board of Teaching preparation program approved under part 8700.7600 leading to the licensure of career and technical education

Subp. 3 Subject matter standards. A candidate for licensure as a career and technical education accommodation specialist for students with disabilities must successfully complete a preparation program under subpart 2 that includes the candidate's demonstration of the knowledge and skills in items A to D

A. A career and technical education accommodation specialist for students with disabilities understands various models, methods, and practices of career and technical education and can meet the needs of students with disabilities The coordinator understands.

(1) health and safety needs of students to provide a safe education and work environment;

(2) career and technical education programs such as work-based learning, school-based enterprise, and how students access those programs to gain preparation they need to meet their career goals,

(3) industry standards for employment,

(4) laws and rules regarding education, employment, and equity;

(5) family structures and dynamics,

(6) labor markets and employment trends,

(7) important trends in the nature of work settings, and

(8) graduation standards and how to facilitate appropriate modifications for students with special needs.

B A career and technical education accommodation specialist for students with disabilities understands and applies processes of referral, assessment, curriculum team planning, and program placement and intervention. The teacher

(1) understands career and vocational testing instruments and interpretation of their results,

(2) adapts and modifies curriculum and instruction to meet individual learner needs;

(3) compiles student productivity data and provides verbal, written, and graphic presentations,

(4) knows various teaching and learning styles and strategies that accommodate individual needs,

(5) adapts and uses assisted technologies and resources for educational and vocational accommodations,

(6) develops and implements performance evaluation plans based on individual student productivity,

(7) assesses and documents a learner's skills and abilities through appropriate educational methodology, and

(8) teaches self-advocacy skills necessary for success in future training or employment

C A career and technical education accommodation specialist for students with disabilities understands how to design and manage a system for developmental services and accommodations for students with special needs in career and technical education The specialist

(1) identifies and allocates resources required to perform effective, efficient service coordination;

(2) collaborates with school personnel, advocacy groups, and outside agencies to ensure equal access and enrollment in career and technical programs,

(3) designs systems that monitor delivery of services and special accommodations for the purpose of program improvement,

(4) provides and coordinates professional development activities for career and technical faculty to enhance understanding of students with special needs,

(5) designs and implements student advising systems and lifework planning skills for career and technical transition to the work and lifelong learning; and

(6) establishes and maintains positive, collaborative relationships with students, families, community agencies, business and labor representatives, and other professionals to support students' lifework plans

D A career and technical education accommodation specialist for students with disabilities understands career development and development of transitional and lifework plans The teacher

(1) understands career development theory and its application to students with disabilities,

(2) possesses skills needed to develop and interpret career portfolios and lifework plans,

(3) interprets, or obtains interpretations from appropriate experts when necessary, medical, psychological, social, special education case files, and vocational data for the development of transition and lifework plans,

(4) applies local and regional labor market information to the development of lifework plans,

(5) knows industry standards for employment,

(6) identifies and implements accommodations for special needs students in the workplace,

(7) knows career resources such as libraries, community, and Internet systems as they apply to lifework planning,

(8) facilitates the development of realistic occupational goals and academic standards for students with disabilities, and

(9) facilitates the job and educational placement of students with disabilities.

Subp. 4. **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing licensure

Statutory Authority: *MS s 122A 09*

History: *26 SR 700*

8710.7200 CLOCK HOURS; REQUIREMENTS FOR RENEWAL OF PROFESSIONAL LICENSES.

[For text of subpart 1, see M.R.]

Subp 2 **Renewal clock hours.** Verification by the local continuing education/relicensure committee that the applicant has completed 125 approved clock hours is required for renewal Instruction and professional development activities meet requirements to renew licenses only if they address one or more of the standards in part 8710 2000 Effective for renewal of professional licenses which expire on June 30, 2001, and after, applicants must include in their 125 clock hours instruction or other professional development activities which address positive behavioral intervention strategies and accommodation, modification, and adaptation of curriculum, materials, and instruction to appropriately meet the needs of varied students in achieving graduation standards Effective for renewal of professional licenses which expire on June 30, 2004, and after, applicants must also include in their 125 clock hours instruction or other professional development activities which evidence further reading preparation, consistent with Minnesota Statutes, section 122A.06, subdivision 4.

[For text of subps 3 to 11, see M.R.]

Statutory Authority: *MS s 122A 09*

History: *26 SR 1512*

8710.8000 CORE SKILLS FOR TEACHERS OF CAREER AND TECHNICAL EDUCATION.

Subpart 1 **Licensure requirements.** A candidate recommended for licensure in career and technical education shall complete the core skill area licensure requirements in subpart 2 as part of each career and technical education preparation program approved under part 8700 7600

Subp 2 **Core skill areas.** A teacher of career and technical education has direct practical experience as an employee in an occupation within the scope of the licensure field and possesses the understandings and skills in career and technical education foundations, processes, and instructional design and teaching in items A to E

A A teacher of career and technical education understands the philosophy and practice of the field in the secondary education system. The teacher must:

- (1) identify, apply, and evaluate the current state and federal legislation related to career and technical education,
- (2) know how to involve advisory committees, labor, business, and community organizations in the delivery of a comprehensive career and technical education system,
- (3) identify and analyze future demographic trends and their implications for career and technical education, and
- (4) provide instructional settings and programs, including classroom, laboratory, and work and community-based settings that are safe, equitable, and maintain appropriate behavioral norms and relationships among participants

B A teacher of career and technical education understands curriculum development and course construction. The teacher is able to:

- (1) design course content comprised of competency-based, contextual learning that contributes to academic knowledge, higher-order reasoning and problem-solving skills, personal and work attitudes, SCANS skills, technical skills including occupation-specific skills, and career exploration and development, and
- (2) develop a strategy for the inclusion of leadership development in such activities as student organizations in career and technical education

C A teacher of career and technical education understands safe and appropriate methods of instruction. The teacher can:

- (1) teach safe use of tools, equipment, materials, and processes in career and technical education learning environments,
- (2) demonstrate career and technical education expertise including essentials of craftsmanship, visualization skills, spatial relationships, mechanical aptitude, and successful employment, and
- (3) identify, develop, analyze, use, evaluate, and interpret a variety of assessment tools and measures that demonstrate student attainment of graduation, industry, and occupational skill standards.

D A teacher of career and technical education understands career development theory and practice. The teacher can

- (1) assist students in understanding the variety and nature of technical careers,
- (2) provide students opportunities to explore careers,
- (3) assist students in evaluating the potential of careers for them as individuals using sound decision-making processes,
- (4) promote students' understanding of the importance of preparation for career change and the need for lifelong learning, and

(5) assist students in developing their job seeking and job keeping skills and their career portfolios

E. A teacher of career and technical education understands management of special learning environments. The teacher can

(1) utilize fiscal, budgetary, purchasing, and inventory control practices to organize and equip special learning environments, including shops and community-based construction sites, and

(2) maintain laboratories and equipment to ensure a safe learning environment that provides for efficient use of student instructional time

Subp 3. **Program requirements.** An institution applying to the Board of Teaching for approval to prepare teachers under parts 8710.8010 to 8710.8080 shall incorporate the requirements of this part in each preparation program.

Statutory Authority: *MS s 122A 09*

History: *26 SR 700*

8710.8010 TEACHERS OF COMMUNICATIONS TECHNOLOGY CAREERS.

Subpart 1 **Scope of practice.** A teacher of communications technology careers is authorized to provide students in grades 9 through 12 instruction that is designed to develop an effective understanding of current communications technology core skills standards through instruction including the following areas

- A academic foundations specific to communications technology,
- B standard safety practices in communications technology,
- C professional responsibilities in communications technology,
- D. communications technology careers exploration and investigation;
- E effects of communications technology; and
- F applications of production skills in communications technology

Subp. 2 **Licensure requirements.** A candidate for licensure as a teacher of communications technology careers shall have completed at least a baccalaureate degree from a regionally accredited college or university and a teacher preparation program approved under part 8700.7600 including

- A the standards of effective practice under part 8710 2000,
- B. the core skills for teachers of career and technical education under part 8710 8000; and
- C. the standards under subpart 3

Subp 3 **Subject matter standard.** A candidate for licensure as a teacher of communications technology careers must complete a preparation program under subpart 2 that includes the candidate's demonstration of the knowledge and skills listed in items A to F

A. A teacher of communications technology careers must demonstrate the knowledge and applications of the academic subject matter required for proficiency in the following areas

- (1) apply knowledge of systems specific to the communications technology careers,
- (2) technical reading and writing using charts, manuals, and journals;
- (3) match math activities to communications technology careers processes,
- (4) create and interpret representations of specifications used in communications technology careers,
- (5) use and interpret technical terminology specific to communications technology careers; and
- (6) awareness of emerging products and technologies as related to communications technology careers.

B A teacher of communications technology careers must demonstrate the knowledge and applications of safety and environmental concerns and policies issued by federal, state, and local regulatory agencies including

- (1) Occupational Safety and Health Administration (OSHA) rules, and
- (2) Minnesota Pollution Control Agency regulations

C. A teacher of communications technology careers must demonstrate knowledge and application of legal responsibilities and ethical practices including

- (1) policies issued by federal, state, and local regulatory agencies, such as copyright laws, rating systems, filters/censorship systems, and mandatory reporting;
- (2) employee protection procedures, such as the "Right to Know" regulations, and
- (3) the management and use of resources, such as staff policies and procedures, budgets, and training opportunities

D A teacher of communications technology careers must demonstrate knowledge by.

- (1) describing potential communications technology career pathways,
- (2) describing the levels of education, licensing/certification requirements, employment opportunities, workplace environments, and career growth potential for a specific communications technology career,
- (3) utilizing personal occupational experiences to make communications technology careers meaningful to the students, and
- (4) facilitating work-based learning opportunities including job shadowing, internships, and apprenticeship programs

E A teacher of communications technology careers must demonstrate the impact of.

- (1) how the products, services, and applications may affect various behavior changes,
- (2) the range of products, services, and applications available to employers and customers,
- (3) quality control and improvement processes as they relate to customer satisfaction,
- (4) past and present effects on the environment, socioeconomic status, and nontraditional technology systems, and
- (5) the management and use of resources

F. A teacher of communications technology careers must demonstrate the skills necessary to:

- (1) envision, design, select, and use materials and resources to create, assemble, and deploy a finished product,
- (2) problem solve, troubleshoot, maintain, repair, and operate equipment, and
- (3) estimate and bid products and services

Subp 4. **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing licensure

Statutory Authority: *MS s 122A 09*

History: *26 SR 700*

8710.8020 TEACHERS OF CONSTRUCTION CAREERS.

Subpart 1 **Scope of practice.** A teacher of construction careers is authorized to provide students in grades 9 through 12 instruction that is designed to develop an effective understanding of construction careers including

- A. academic foundations specific to the construction field,

- B construction systems and issues,
- C. planning and management in construction,
- D construction career exploration and investigation, and
- E. safety and environmental practices in the construction field

Subp. 2 **Licensure requirements.** A candidate for licensure as a teacher of construction careers shall have completed at least a baccalaureate degree from a regionally accredited college or university and a teacher preparation program approved under part 8700 7600 including

- A the standards of effective practice under part 8710 2000,
- B the core skills for teachers of career and technical education under part 8710 8000, and
- C the standards under subpart 3

Subp. 3 **Subject matter standard.** A candidate for licensure as a teacher of construction careers must complete a preparation program under subpart 2 that must include the candidate's demonstration of the knowledge and skills in items A to E

A A teacher of construction careers must demonstrate the knowledge and applications of the academic subject matter required for proficiency within the following areas:

- (1) knowledge of math and measurement,
- (2) skill in technical reading and writing,
- (3) knowledge of geography and the environment as it relates to decision making and planning,
- (4) construction terminology/vocabulary, and
- (5) scientific principles in the planning and construction process

B A teacher of construction careers must demonstrate the knowledge and applications of construction systems and issues including

- (1) use of materials;
- (2) methods/processes in construction,
- (3) use and maintenance of tools and equipment,
- (4) understanding of subsystems, such as electrical, plumbing, heating, and landscaping, and
- (5) awareness of emerging products and technologies, such as air quality, energy conservation, and computer-controlled systems

C. A teacher of construction careers must demonstrate knowledge and application of planning, management, and business operation techniques in:

- (1) scheduling of work crews and tasks,
- (2) financial aspects, such as securing financing, project estimating, and bidding procedures,
- (3) management of human and material resources,
- (4) understanding and interpreting construction documents, such as project plans, schedules, charts, graphs, and change orders, and
- (5) understanding and application of energy and building codes

D A teacher of construction careers must demonstrate knowledge of the construction career clusters in the areas of

- (1) potential career paths found in the construction industry;
- (2) levels of education, licensing/certification requirements, employment opportunities, and workplace environments including team work and potential career growth,
- (3) work-based learning opportunities including job shadowing, internships, and apprenticeship programs;
- (4) labor organizations and their impact on the construction trades, and

(5) utilizing personal occupational experiences to make construction careers meaningful to the students

E. A teacher of construction careers must demonstrate knowledge and application of safety and environmental practices including

- (1) use of tools and equipment,
- (2) personal safety concerns including body mechanics and ergonomics,
- (3) first aid procedures and universal precautions,
- (4) use of energy sources, such as natural gas and electricity,
- (5) Environmental Protection Agency (EPA) regulations, such as proper material disposal, indoor air quality, and lead and asbestos abatement,
- (6) Occupational Safety and Health Administration (OSHA) regulations,
- (7) material safety data sheets (MSDS) adhering to hazardous labeling requirements, and
- (8) safety signs, symbols, and labels

Subp 4 **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing professional licensure

Statutory Authority: *MS s 122A 09*

History: *26 SR 700*

8710.8030 TEACHERS OF MANUFACTURING CAREERS.

Subpart 1 **Scope of practice.** A teacher of manufacturing careers is authorized to provide students in grades 9 through 12 instruction that is designed to develop an effective understanding of the following areas

- A academic foundations specific to the manufacturing field,
- B standard safety and environmental practices,
- C manufacturing career exploration and investigation,
- D industry skills standards for manufacturing technology; and
- E ethics and legal responsibilities in manufacturing

Subp. 2 **Licensure requirements.** A candidate for licensure as a teacher of manufacturing careers shall have completed at least a baccalaureate degree from a regionally accredited college or university and a teacher preparation program approved under part 8700.7600 including

- A the standards of effective practice under part 8710 2000,
- B the core skills for teachers of career and technical education under part 8710 8000, and
- C the standards under subpart 3

Subp 3 **Subject matter standard.** A candidate for licensure as a teacher of manufacturing careers must complete at least a baccalaureate degree from a regionally accredited college or university and a preparation program under subpart 2 that must include the candidate's demonstration of the knowledge and skills in items A to E

A A teacher of manufacturing careers must demonstrate the knowledge and applications of academic subject matter required for proficiency in the following areas

- (1) knowledge of math and science to manufacturing situations within specific manufacturing careers,
- (2) technical reading and writing in a manufacturing environment such as creating and interpreting graphs, charts, manuals, journals, and specifications,
- (3) problem solving in mathematical applications such as equations, formulas, and processes, and
- (4) applying manufacturing terminology for communication with co-workers, customers, and employers.

B A teacher of manufacturing careers must demonstrate knowledge and application of safety principles according to the rules and regulations of

- (1) the Occupational Safety and Health Administration (OSHA),
- (2) the Environmental Protection Agency (EPA); and
- (3) the material safety data sheets (MSDS).

C. A teacher of manufacturing careers must demonstrate knowledge and application of manufacturing careers by

- (1) describing potential manufacturing careers,
- (2) describing the levels of education, licensing/certification requirements, employment opportunities, workplace environments, potential salaries, and career growth potential, and
- (3) utilizing personal occupational experiences to make manufacturing careers meaningful to the students

D A teacher of manufacturing careers must demonstrate the knowledge and ability of the processes used to take a blueprint and manufacture a product from beginning to end using industry standards. These processes include

- (1) general processes for manufacturing technology include blueprint reading, layout techniques, hand tool processes/identifications, measurement techniques, metallurgy, sawing techniques, abrasive processes, drilling techniques, quality control, jigs, fixtures and fasteners, accreditation/certification, laser processes, water cutting, robotics, fluid power systems, foundry processes, sheet metal processes, forging processes, and plastic technologies,
- (2) specific processes for machine trades including precision measurement techniques, milling processes, turning processes, forming processes, precision grinding, numerical control, plastics/laminates processes, electrical discharge machining processes, stereo-lithography, tool and cutter grinding, computer aided drafting (CAD), computer aided machining (CAM), and geometric tolerancing, and
- (3) specific processes for welding trades including, electrical polarities, electrode classifications, plasma arc cutting (ARC), oxy, fuel cutting (OFC), automatic cutting processes, gouging processes, oxy, acetylene welding (OAW), shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux core arc welding (FCAW), gas tungsten arc welding (GTAW), submerged arc welding (SAW), plasma arc welding (PAW), hard facing processes, and weld testing (nondestructive/destructive)

E A teacher of manufacturing careers must demonstrate knowledge and application of legal responsibilities and ethical practices in manufacturing including

- (1) morality and ethics and the relationship of each to manufacturing occupations, such as falsifying documents,
- (2) legal and policy issues impacting manufacturing industries, such as errors and omissions, negligence liabilities, and environmental issues and concerns,
- (3) understanding the importance of customer satisfaction, such as on-time delivery and quality control,
- (4) employee protection documents, such as the Right to Know regulations, and
- (5) requirements for reporting and documentation of any activity that adversely affects the welfare of customers and fellow workers, such as incident reports and hazardous material spills

Subp 4 **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing licensure

Statutory Authority: *MS s 122A 09*

History: *26 SR 700*

8710.8040 TEACHERS OF MEDICAL CAREERS.

Subpart 1 **Scope of practice.** A teacher of medical careers is authorized to provide students in grades 9 through 12 instruction that is designed to develop an effective understanding of the National Health Care Skills Standards in the following areas:

- A academic foundations specific to the medical field,
- B health care systems and issues;
- C medical communication,
- D ethics and legal responsibilities in health care,
- E medical/health career exploration and investigation, and
- F standard safety and infection control practices

Subp 2 **Licensure requirements.** A candidate for licensure as a teacher of medical careers shall possess or have possessed licensure or certification to practice in a medical career, direct practical experience as a medical professional, and have completed at least a baccalaureate degree from a regionally accredited college or university and a teacher preparation program approved under part 8700 7600 including:

- A the standards of effective practice under part 8710 2000,
- B the core skills for teachers of career and technical education under part 8710 8000, and
- C the standards under subpart 3

Subp 3 **Subject matter standard.** A candidate for licensure as a teacher of medical careers must complete a preparation program under subpart 2 that must include the candidate's demonstration of the knowledge and skills in items A to F

A. A teacher of medical careers must demonstrate the knowledge and applications of the academic subject matter required for proficiency in the following areas:

- (1) knowledge of life sciences such as biology, chemistry, physics, and human growth and development to client care situations within specific medical careers,
- (2) reading and writing in health care situations, such as case studies, medical charts, manuals, and journals,
- (3) mathematical operations, such as computations for drug and fluid dosages and assessment of client condition, and
- (4) health care terminology for interstaff communication and interpretation of information to clients

B A teacher of medical careers must demonstrate the knowledge and applications of health care delivery systems and issues including

- (1) where and how factors, such as cost, managed care, technology, an aging population, access to care, alternative therapies, and how lifestyle/behavior changes may affect various health care delivery systems,
- (2) the range of services available to clients,
- (3) delivery of health care to diverse groups in a variety of situations,
- (4) quality improvement processes as they relate to client outcomes,
- (5) effects on the health care system caused by past and present influences of technology, epidemiology, bioethics, socioeconomic, and other various forms of complimentary (nontraditional) medicine, and
- (6) the use of medical facility resources, such as staff, policy and procedure manuals, and training opportunities

C. A teacher of medical careers must demonstrate the knowledge and applications of the various methods of giving and obtaining information including

- (1) interpreting, transcribing, and communicating information, data, and observations using medical terminology within various health care situations,

(2) reporting subjective and objective client information in relevant order of occurrence, and

(3) using decision-making models within the context of problem solving in the health care environment

D. A teacher of medical careers must demonstrate knowledge and application of legal responsibilities and ethical practices in health care, including

(1) morality and ethics and the relationship of each to health care outcomes,

(2) legal and policy issues impacting health care, such as malpractice, negligence, and liability;

(3) the primacy of client confidentiality;

(4) patient protection documents, such as the Client Bill of Rights and the Vulnerable Adults Protection Act, and

(5) requirements for reporting and documentation of any activity that adversely affects the welfare of clients or fellow workers, such as incident reports, medication, or treatment errors

E. A teacher of medical careers must demonstrate knowledge of the diagnostic, therapeutic, environmental, and informational medical career clusters by.

(1) describing potential health career paths and ladders in occupations found in aforesaid clusters,

(2) describing the levels of education, licensing/certification requirements, employment opportunities, workplace environments, and career growth potential for a specific medical career, and

(3) utilizing personal occupational experiences to make medical careers meaningful to the students.

F. A teacher of medical careers must demonstrate knowledge and application of safety principles and infection control practices including.

(1) standard precautions as described in the rules and regulations of the Occupational Safety and Health Administration (OSHA),

(2) infection control procedures;

(3) safety procedures to protect clients, co-workers, and self,

(4) body mechanics and ergonomics,

(5) environment modification to create safe conditions in the health care setting,

(6) methods of fire prevention and response,

(7) material safety data sheets (MSDS) and adhering to hazardous labeling requirements,

(8) safety signs, symbols, and labels,

(9) facility evacuation plan, and

(10) emergency plan in response to a natural disaster or other unusual incident

Subp 4 **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing licensure

Statutory Authority: *MS s 122A 09*

History: *26 SR 700*

8710.8050 TEACHER OF CREATIVE DESIGN CAREERS.

Subpart 1 **Scope of practice.** A teacher of creative design careers is authorized to provide students in grades 9 through 12 instruction that is designed to develop an in-depth understanding and application of the knowledge and skills required in creative design careers including:

A textiles and apparel careers, and

B. housing, interiors, and furnishings careers

Subp 2. **Licensure requirements.** A candidate for licensure as a teacher of creative design careers shall have completed at least a baccalaureate degree from a regionally accredited college or university and a teacher preparation program approved under part 8700 7600 including

A. the standards of effective practice under part 8710 2000,

B the core skills for teachers of career and technical education under part 8710 8000; and

C. the standards under subpart 3

Subp 3. **Subject matter standard.** A candidate for licensure as a teacher of creative design careers must complete a preparation program under subpart 2 that must include the candidate's demonstration of the knowledge and skills in items A and B

A. A teacher of creative design careers must demonstrate the knowledge, skills, and application of the following subject matter standards

(1) apply textiles and apparel design skills, such as color and textile analysis, flat pattern design, draping design, and construction,

(2) possess a comprehensive understanding of the history of fashion and design and its impact on current trends in textiles and apparel industry,

(3) apply textile and apparel industry standards to production, alteration, and repair of textile products or apparel, fashion/fabric merchandising, and production of commercial, institutional, and residential textile products,

(4) evaluate the elements of textiles and apparel merchandising, such as customer service, fashion trends, cost effectiveness, marketing, and merchandise display;

(5) demonstrate operational procedures specific to business profitability and career success in textiles and apparel,

(6) incorporate fashion, apparel, textile career opportunities and activities, such as job shadowing, simulated work experiences, internships, apprenticeships, and student organizations into the curriculum,

(7) describe and analyze career paths and ladders in textiles and apparel careers and utilize personal occupational experiences to make textiles and apparel careers meaningful to students, and

(8) describe the levels of education, licensing or certification requirements, employment opportunities, workplace environments, and career growth in textiles and apparel careers

B. A teacher of creative design careers must demonstrate the knowledge, skills, and application of the following subject matter standards

(1) understand the influences which impact housing, interior, and furnishing industries, such as social, economic, cultural, urban, suburban, and rural, and their relationship to client's needs,

(2) evaluate housing decisions based on client's needs, goals, options, and resources to create design plans for commercial and residential environments, such as home, office, health care, hospitality, institutions, and retail,

(3) evaluate products used in housing, interiors, and furnishings to meet specific needs, such as physical disabilities, health conditions, and geographical location;

(4) understand the current industry standards used in housing, interiors, and furnishings,

(5) demonstrate computer-aided drafting design, blueprint reading, and space planning skills required in the housing, interiors, and furnishings industry;

(6) demonstrate design ideas through visual presentation;

(7) demonstrate operational procedures for housing, interiors, and furnishings business profitability and career success,

(8) incorporate housing, interiors, and furnishings career opportunities and activities such as job shadowing, simulated work experiences, internships, apprenticeships, and student organizations into the curriculum,

(9) describe and analyze career paths and ladders in housing, interiors, and furnishings careers,

(10) utilize personal occupational experiences to make housing, interiors, and furnishings careers meaningful to students, and

(11) describe the levels of education, licensing/certification requirements, employment opportunities, workplace environments, and career growth in housing, interiors, and furnishings careers

Subp 5 **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing continuing licensure.

Statutory Authority: *MS s 122A 09*

History: 26 SR 700

8710.8060 TEACHER OF EARLY CHILDHOOD CAREERS.

Subpart 1 **Scope of practice.** A teacher of early childhood careers is authorized to provide students in grades 9 through 12 instruction that is designed to develop an in-depth understanding and application of the knowledge and skills in:

- (1) academic foundations specific to early childhood careers,
- (2) administration of early childhood programs,
- (3) operational procedures of early childhood programs, and
- (4) early childhood career exploration and investigation.

Subp 2 **Licensure requirements.** A candidate for licensure as a teacher of early childhood careers shall have completed at least a baccalaureate degree from a regionally accredited college or university and a teacher preparation program approved under part 8700 7600 including

A the standards of effective practice under part 8710.2000,

B the core skills for teachers of career and technical education under part 8710 8000, and

C. the standards under subpart 3

Subp 3 **Subject matter standard.** A candidate for licensure as a teacher of early childhood careers must complete a preparation program under subpart 2 that must include the candidate's demonstration of the knowledge and skills in items A to D:

A A teacher of early childhood careers must demonstrate the knowledge and applications of the academic subject matter required for proficiency. The teacher must

(1) understand and apply the theories of age and stage development of children prenatal through adolescence including an understanding of exceptionalities;

(2) understand the theory of child psychology and its application through learning, creative, cognitive, physical, language, self-help, and social activities;

(3) analyze and apply developmentally appropriate practices (National Association for the Education of Young Children NAEYC) to plan for early childhood programs,

(4) demonstrate appropriate observation techniques, and

(5) define standards of accreditation in early childhood programs and services

B. A teacher of early childhood careers must demonstrate the knowledge and applications of program administration. The teacher must.

(1) possess a comprehensive understanding of the federal, state, and local laws governing programs in early childhood,

- (2) guide students in establishing a safe and healthy learning environment when working with children, families, educational systems, or community agencies,
- (3) demonstrate techniques for positive collaborative relationships when working with children, families, educational systems, or community agencies, and
- (4) integrate the specific needs and interests of children and families throughout developmental stages in a variety of educational and community settings.

C. A teacher of early childhood careers must demonstrate the knowledge and applications of operational procedures. The teacher must.

- (1) understand the ethics and legal responsibilities of working with multidisciplinary systems, such as parents, children, medical services, educational systems, legal systems, and community services,
- (2) perform and teach the appropriate procedures regarding health and safety, nutrition, and food preparation on a daily basis,
- (3) demonstrate an understanding of the learning environment, such as equipment, room arrangement, activity schedules, and its potential effect on the program, children, staff, and parents,
- (4) model effective use of verbal and nonverbal communication techniques when working with parents, children, staff, educational systems, and community agencies, and
- (5) understand the mandatory reporting responsibilities, such as abuse and harassment, in regard to working with children

D. A teacher of early childhood careers must demonstrate the knowledge and skills in the career field of early childhood to

- (1) describe and analyze career paths and ladders in early childhood careers,
- (2) utilize personal occupational experiences to make early childhood careers meaningful to students;
- (3) describe the levels of education, licensing/certification requirements, employment opportunities, workplace environments, and career growth potential for a specific early childhood career, and
- (4) incorporate early childhood career opportunities and activities, such as job shadowing, simulated work experiences, internships, apprenticeships, and student organizations into the curriculum

Subp 4 **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing continuing licensure

Statutory Authority: *MS s 122A 09*

History: *26 SR 700*

8710.8070 TEACHER OF HOSPITALITY SERVICE CAREERS.

Subpart 1 **Scope of practice.** A teacher of hospitality service careers is authorized to provide students in grades 9 through 12 instruction that is designed to develop an in-depth understanding and application of the knowledge and skills required in food preparation/production and service, food science/nutrition, tourism/recreation, and facilities management/maintenance

Subp 2 **Licensure requirements.** A candidate for licensure as a teacher of hospitality service careers shall have completed at least a baccalaureate degree from a regionally accredited college or university and a teacher preparation program approved under part 8700 7600, including:

- A the standards of effective practice under part 8710.2000,
- B the core skills for teachers of career and technical education under part 8710.8000; and
- C the standards under subpart 3.

Subp 3 **Subject matter standard.** A candidate for licensure as a teacher of hospitality careers must complete a preparation program under subpart 2 that must include the candidate's demonstration of the knowledge and skills in items A to D

A. A teacher of hospitality service careers must be able to demonstrate the knowledge, skills, and applications of the following academic subject matter standards

(1) an understanding of bacteriology/food sanitation hygiene and its impact on the production and serving of food,

(2) an understanding of the current theories and trends in food science and nutrition and their impact on food preparation/production and service;

(3) the use of specific food service industry and government standards to design the layout of food service facilities,

(4) the use of appropriate techniques in food production and service, such as quantity food purchasing, cost control, food preparation, and new product development,

(5) an understanding of how food service impacts the tourism industry, such as its nature, growth, and development,

(6) an understanding of the coordination techniques of planning activities, events, and convention functions, and

(7) an understanding of and the use of the principles of small business management involved in tourism/recreation management, food preparation/production, service, and facilities management/maintenance

B. A teacher of hospitality service careers must be able to demonstrate the knowledge, skills, and applications of administration including

(1) use of recordkeeping and accounting in the hospitality service industry, such as food preparation/production and service, tourism/recreation management, and facilities management/maintenance,

(2) promotion and use of environmental, security, and safety/sanitation procedures as they pertain to food service, hospitality, tourism/recreation, and facilities management/maintenance,

(3) selection, use, and maintenance of specialized equipment used in food preparation/production, hospitality, tourism/recreation, and facilities management/maintenance, and

(4) use of industry skill standards in food service, food preparation/production, tourism/recreation, and facilities maintenance

C. A teacher of hospitality service careers must be able to demonstrate the knowledge, skills, and applications of operational procedures including

(1) the use of appropriate communication skills to foster positive relationships when working in food service, hospitality, tourism/recreation, and facilities management/maintenance,

(2) a comprehensive understanding of federal, state, and local laws, federal regulations, and state rules governing the hospitality service industries, such as food preparation/production and service, tourism/recreation, and facilities management/maintenance, and

(3) the use of concepts of production and service to meet customer needs and expectations

D. A teacher of hospitality service careers must demonstrate the knowledge and skills in the career fields of food preparation/production and service, food science/nutrition, tourism/recreation, and management/maintenance of facilities to

(1) describe and analyze career paths and ladders in hospitality service careers,

(2) utilize personal occupational experience to make food preparation/production and service, food science/nutrition, tourism/recreation, and facilities management/maintenance careers meaningful to students,

(3) describe the levels of education, licensing/certification requirements, employment opportunities, workplace environments, and career growth potential in hospitality service careers, and

(4) incorporate hospitality service career opportunities and activities, such as job shadowing, simulated work experiences, internships, apprenticeships, and student organizations into the curriculum

Subp 4. **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing continuing licensure

Statutory Authority: *MS s 122A 09*

History: 26 SR 700

8710.8080 TEACHERS OF TRANSPORTATION CAREERS.

Subpart 1 **Scope of practice.** A teacher of transportation careers is authorized to provide students in grades 9 through 12 instruction that is designed to develop an effective understanding of the National Transportation Core Skills Standards.

Subp 2. **Licensure requirements.** A candidate for licensure as a teacher of transportation careers shall have completed a teacher preparation program approved under part 8700 7600 including.

A the standards of effective practice under part 8710.2000,

B the core skills for teachers of career and technical education under part 8710 8000, and

C the standards under subpart 3.

Subp 3 **Subject matter standard.** A candidate for licensure as a teacher of transportation careers must complete at least a baccalaureate degree from a regionally accredited college or university and a preparation program under subpart 2 that must include the candidate's demonstration of the knowledge and skills in items A to F

A A teacher of transportation careers must demonstrate the knowledge and applications of the academic subject matter required for proficiency within the following areas:

(1) apply knowledge of electricity, electronics, chemistry, and physics specific to the transportation industry,

(2) match measurement activities to transportation processes,

(3) create and interpret graphs, charts, manuals, journals, and specifications used in transportation, and

(4) use and interpret technical terminology specific to transportation industries.

B A teacher of transportation careers must demonstrate the knowledge and applications of safety and environmental concerns and issues including

(1) Occupational Safety and Health Administration (OSHA) rules,

(2) Minnesota Pollution Control Agency regulations,

(3) transportation regulatory agencies, such as the Department of Transportation and Federal Aviation Administration, and

(4) the use of first aid resources, such as staff, policy and procedure manuals, and training opportunities regarding acids, fuels, and chemicals

C. A teacher of transportation careers must demonstrate knowledge and application of legal responsibilities and ethical practices in transportation, including

(1) morality and ethics and the relationship of each to transportation occupations, such as falsifying documents and service work orders,

(2) legal and policy issues impacting transportation industries, such as errors and omissions, negligence liabilities, environmental issues, and concerns;

(3) understanding the importance of customer satisfaction, such as avoiding comebacks, warranty work, and doing unauthorized services,

(4) employee protection documents, such as the Right to Know Regulations, and

(5) requirements for reporting and documentation of any activity that adversely affects the welfare of customers and fellow workers, such as incident reports and hazardous material spills

D. A teacher of transportation careers must demonstrate the knowledge and applications of the various methods of giving and obtaining information including:

(1) interpreting, transcribing, and communicating information, data, and observations using transportation terminology,

(2) reporting subjective and objective customer information in relevant order of occurrence, such as work orders and cost estimates, and

(3) using decision-making models within the context of problem solving in the transportation industry, such as diagnostic flow charts and weight and balance calculations

E. A teacher of transportation careers must demonstrate knowledge of alternative careers within the industry by:

(1) describing potential transportation career paths and ladders in occupations found in the transportation careers, such as land, air, water, and space,

(2) describing the levels of education, licensing or certification requirements, employment opportunities, workplace environments, and career growth potential for a specific transportation career; and

(3) utilizing personal occupational experiences to make transportation careers meaningful to the students

F. A teacher of transportation careers must demonstrate the knowledge and applications of transportation systems and issues including:

(1) where and how factors, such as cost, technology, alternative methods, and how lifestyle or behavior changes may affect various transportation systems,

(2) the range of services and technology applications available to employers and customers, such as the Internet and wireless communications,

(3) quality improvement processes as they relate to customer outcomes, through the use of new technologies, tools, methods, and equipment, and

(4) effects on the transportation systems caused by past and present influences of technology, environmental, socioeconomics, and other various forms of nontraditional transportation

Subp 4 **Professional license.** A professional license shall be issued and renewed according to the rules of the Board of Teaching governing continuing licensure

Statutory Authority: *MS s 122A 09*

History: *26 SR 700*