505-2-.96 TRADE AND INDUSTRIAL EDUCATION

(1) Trade and Industrial Education is one part of the larger area of education curriculum known as Career Technical & Agricultural Education (CTAE). Only Technical Specialist certificates are issued in the Trade and Industrial Education field and they are based on a combination of occupational experience, industry licensing and assessments, and formal study. Upon the receipt of an initial certificate, the educator must affiliate with and complete a state-approved program in Trade and Industrial Education in order to convert to the Clear Renewable Technical Specialist certificate.

(2) Technical Specialist Certificate Areas of Specialization within the field of Trade and Industrial Education are:

Automotive Service Technology Aviation **Broadcast and Video Production Collision Repair** Construction (Carpentry, Electrical, Masonry, Plumbing and Heating, Ventilation, Air Conditioning & Refrigeration (HVACR) Cosmetology Electronic Technology Architectural Drawing and Design Granite Technology Graphic Communications & Design Information Technology Manufacturing and Engineering Sciences Precision Machine Technology Culinary Arts Public Safety Sheet Metal **Telecommunications** Welding Technology

(3) Eligibility requirements for each Area of Specialization are listed below. Some areas, not all, include an option for an initial 3-year Non-Renewable certificate that, at the request of an employing school system, may be issued to individuals who do not yet meet industry test or license standards. These individuals will have 3 years to complete the industry test or license standards AND all other education requirements as outlined in Rule 505-2-.39, paragraph (4)(c).

(a) AUTOMOTIVE SERVICE TECHNOLOGY:

1. Hold a high school diploma or GED equivalent or higher; and

2. Hold valid certification from the National Institute for Automotive Services Excellence (<u>ASE</u>) in the <u>Automobile Technical Certification Series</u> in all four of the areas of: Engine Performance; Suspension and Steering; Brakes; and, Electrical/Electronic Systems; and

3. Have at least 2 years of occupational work experience in the field.

4. As outlined in Rule <u>505-2-.39</u> (4)(c), applicants in this Area of Specialization not meeting paragraph 2. above may be issued a 3-year Non-Renewable Certificate.

(b) AVIATION:

- 1. Aircraft Support.
- (i) Hold a high school diploma or GED equivalent or higher; and

((ii) Hold a valid "Airframe" and "Powerplant" licenses from the <u>Federal Aviation Administration</u> (FAA); and

(iii) Have at least 2 years of occupational work experience in the field, as determined by the PSC.

2. Flight Operations.

(i) Option 1.

- (I) Hold a bachelor's degree or higher; and
- (II) Hold a valid FAA pilot certificate (private, commercial, or airline transport pilot [ATP]); and
- (III) Have a minimum of 300 hours of logged flight time as a Pilot in Command (PIC).
- (ii) Option 2.
- (I) Hold a bachelor's degree or higher; and
- (II) Hold a valid FAA Ground Instructor's certificate; and

(III) Have a minimum of 300 student contact hours as an instructor on an FAA Ground Instructor's certificate.

- (iii) Option 3.
- (I) Hold a bachelor's degree or higher; and
- (II) Hold a valid FAA Certified Flight Instructor (CFI) certificate; and
- (III) Have a minimum of 200 student contact hours as an instructor on a CFI certificate.
- (iv) Option 4.
- (I) Hold a bachelor's degree or higher; and

(II) Have a minimum of 2 years of occupational work experience in a field related to flight operations or aviation instruction, as determined by the PSC; or

(III) Have verified military experience equivalent to Option 1, 2, or 3 above, as determined by the PSC.

(c) BROADCAST AND VIDEO PRODUCTION:

1. Hold an associate's degree or higher in broadcast and video production OR communication OR a PSC-determined equivalent; and

2. Have at least 2 years of occupational work experience in the field.

(d) COLLISION REPAIR:

1. Hold a minimum of a high school diploma or GED equivalent; and

2. Hold valid certification from the National Institute for Automotive Services Excellence (<u>ASE</u>) in the Master Collision Repair and Refinish Certification Series in the areas of: Painting and Refinishing (Test B2); Structural Analysis and Damage Repair (Test B4); and

3. Have at least 2 years of occupational work experience in the field.

4. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in this Area of Specialization not meeting paragraph 2. above may be issued a 3-year Non-Renewable Certificate.

(e) **CONSTRUCTION**: (Carpentry, Electrical, Masonry, Plumbing and Heating, Ventilation, Air Conditioning & Refrigeration (HVACR):

1. Option 1.

(i) Hold a minimum of a high school diploma or GED equivalent; and

(ii) Hold a Level IV certificate in Carpentry or Electrical or Plumbing or HVAC issued from the National Center for Construction Education and Research (<u>NCCER</u>); OR hold a Level III certificate in Masonry issued from the National Center for Construction Education and Research (<u>NCCER</u>); OR hold a Contractor license in Electrical, Plumbing or Conditioned Air issued by the Georgia Board of Construction Industry <u>http://sos.georgia.gov/plb/construct/</u>; OR hold a Basic, Light Commercial, or General Contractor license issued by the State Licensing Board for Residential and General Contractors <u>http://sos.georgia.gov/plb/contractors/default.htm</u>; and

(iii) Have at least 2 years of occupational work experience in the field.

2. Option 2.

(i) Hold an associate's degree or higher in construction management or building construction or a PSC-determined equivalent; and

(ii) Have at least 2 years of occupational work experience in the field.

3. Option 3.

(i) Hold a minimum of a high school diploma or GED equivalent; and

(ii) Pass both the Written and Performance portions of the National Occupational Competency Test (NOCTI) in Building Construction; and

(iii) Have at least 2 years of occupational work experience in the field.

- 4. Option 4.
- (i) Hold a minimum of a high school diploma or GED equivalent; and

(ii) Pass both the Knowledge Base Test and the Skills Demonstration parts of the <u>National</u> <u>Construction Career Tests (NCCT)</u> in Carpentry, and Plumbing, and Electrical, and Masonry, and HVAC; and

(iii) Have at least 2 years of occupational work experience in the field.

5. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in this Area of Specialization under options 1, 3 and 4 above and not meeting paragraph (ii), may be issued a 3-year Non-Renewable Certificate.

(f) COSMETOLOGY:

1. Hold a minimum of a high school diploma or GED equivalent; and

2. Hold a valid <u>State of Georgia license in "Cosmetology"</u> issued by the Georgia State Board of Cosmetology; and

3. Have at least 2 years of occupational work experience in the field.

(g) ELECTRONIC TECHNOLOGY:

1. Option 1.

(i) Hold an associate's degree in electronics technology or a bachelor's degree or higher in electronics or electrical engineering from a PSC-approved accredited institution; OR

(ii) Hold a valid <u>Electronics Technician Association - International (ETA-I) certificate</u> in <u>Basic</u> <u>Electronics Associate-AST</u> issued by the Electronics Technicians Association; OR hold a Level III certificate in Electronic Systems Technician from the National Center for Construction Education and Research (<u>NCCER</u>); and

(iii) Have at least 2 years of occupational work experience in the field.

- 1. Option 2.
- (i) Hold a high school diploma or GED equivalent or higher; and

(ii) Pass both the Written and Performance portions of the National Occupational Competency Test (NOCTI) in Electronic Technology; and

(iii) Have at least 2 years of occupational work experience in the field.

3. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in this Area of Specialization under options 1 and 2 above and not meeting paragraph (ii), may be issued a 3-year Non-Renewable Certificate.

(h) ARCHITECTURAL DRAWING AND DESIGN:

1. Option 1.

(i) Hold a technical college diploma or higher in engineering drawing and design, OR drafting, OR architecture, OR civil engineering OR a PSC-determined equivalent; and

(ii) Have at least 2 years of occupational work experience in the field.

- 2. Option 2.
- (i) Hold a high school diploma or GED equivalent or higher; and

(ii) Pass both the Written and Performance portions of the National Occupational Competency Test (NOCTI) in Drafting (Architectural & Technical); and

(iii) Have at least 2 years of occupational work experience in the field.

3. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in this Area of Specialization under option 2 above and not meeting paragraph (ii), may be issued a 3-year Non-Renewable Certificate.

(i) **GRANITE TECHNOLOGY**:

- 1. Hold a minimum of a high school diploma or GED equivalent; and
- 2. Have at least 2 years of occupational work experience in the field.

(j) GRAPHIC COMMUNICATIONS AND DESIGN:

1. Hold an associate's degree or higher in graphic communications, OR graphic design, OR print management, OR commercial art, OR industrial design, OR a PSC-determined equivalent; and

2. Have at least 2 years of occupational work experience in the field.

(k) INFORMATION TECHNOLOGY:

- 1. IT / Information Services and Support.
- (i) Hold an associate's degree or higher in any field; and
- (ii) Hold <u>A + certification</u> from <u>CompTIA</u>; and,
- (iii) Have at least 2 years of occupational work experience in the field.
- 2. IT/Network Systems.
- (i) Hold an associate's degree or higher in any field; and

(ii) Hold any one of the following: <u>Net + certification</u> from <u>CompTIA</u>; or <u>Certified Netware</u> <u>Engineer (CNE) certification</u> from <u>Novell</u>; or <u>Certified Netware</u> Administrator (CNA) certification from <u>Novell</u>; or <u>Microsoft Certified System Engineer (MCSE)</u> from <u>Microsoft</u>; or <u>Microsoft Certified</u> <u>System Administrator (MCSA)</u> certification from <u>Microsoft</u>; or <u>Cisco Certified Network Associate</u> (CCNA) certification from Cisco; and

(iii) Have at least 2 years of occupational work experience in the field.

- 3. IT/Programming and Software Development.
- (i) Hold an associate's degree or higher in any field; and
- (ii) Hold a Microsoft Certified Solution Developers (MCSD) certificate from Microsoft; and
- (iii) Have at least 2 years of occupational work experience in the field.
- 4. IT/Interactive Media.
- (i) Hold an associate's degree or higher in any field; and
- (ii) Hold i-NET + certification from CompTIA; and
- (iii) Have at least 2 years of occupational work experience in the field.

5. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in each of these Areas of Specialization listed above in paragraphs 1., 2., 3., and 4., and not meeting paragraph (ii) above, may be issued a 3-year Non-Renewable Certificate.

(I) MANUFACTURING AND ENGINEERING SCIENCES:

- 1. Option 1.
- (i) Hold a minimum of a high school diploma or GED equivalent; and

(ii) Hold a valid Level IV certificate in Industrial Maintenance issued by the National Center for Construction Education and Research (NCCER); and

- (iii) Have at least 2 years of occupational work experience in the field.
- 2. Option 2.

(i) Hold a technical college diploma or higher in industrial maintenance, OR industrial systems, OR industrial engineering OR a PSC-determined equivalent; and

(ii) Have at least 2 years of occupational work experience in the field.

3. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in this Area of Specialization under Option 1 above and not meeting paragraph (ii), may be issued a 3-year Non-Renewable Certificate.

(m) PRECISION MACHINE TECHNOLOGY:

- 1. Option 1.
- (i) Hold a minimum of a high school diploma or GED equivalent; and

(ii) Hold valid NIMS credentials in both <u>Machining Level 1 AND Metal Stamping Level 1</u> issued by the National Institute for Metalworking Skills, Inc. (<u>NIMS</u>); and (iii) Have at least 2 years of occupational work experience in the field.

- 2. Option 2.
- (i) Hold a minimum of a high school diploma or GED equivalent; and

(ii) Pass both the Written and Performance portions of the National Occupational Competency Test (NOCTI) in precision machining; and

(iii) Have at least 2 years of occupational work experience in the field.

3. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in this Area of Specialization under Option 1 and 2 above and not meeting paragraph (ii), may be issued a 3-year Non-Renewable Certificate.

(n) CULINARY ARTS:

- 1. Option 1.
- (i) Hold an associate's degree or higher in culinary arts or a PSC-determined equivalent; and
- (ii) Have at least 2 years of occupational work experience in the field.

(o) PUBLIC SAFETY:

1. Hold an associate's degree or higher in criminal justice or a PSC-determined equivalent; and

2. Have at least 2 years of work experience in public Law Enforcement Services, Correction Services, Emergency and Fire Management Services, Security and Protective Services or Legal Services.

(p) SHEET METAL:

1. Hold a minimum of a high school diploma or GED equivalent; and

2. Hold a valid <u>Level IV certificate in Sheet Metal Technology</u> issued by the National Center for Construction Education and Research (<u>NCCER</u>); OR

3. Pass both the Written and Performance portions of the National Occupational Competency Test (NOCTI) in sheet metal; OR pass both the Knowledge Base Test and the Skills Demonstration parts of the National Construction Career Test in Sheet Metal (NCCT) found at http://www.nocti.org; and

4. Have at least 2 years of occupational work experience in the field.

5. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in this Area of Specialization not meeting paragraph 2. or 3. above may be issued a 3-year Non-Renewable Certificate.

(q) TELECOMMUNICATIONS:

1. Hold a minimum of a high school diploma or GED equivalent; and

2. Complete a Georgia Department of Technical and Adult Education (DTAE) certificate program in Telecommunications or a DTAE diploma program in Telecommunications Technology; OR hold a valid Level III certificate in Telecommunications issued by the National Center for Construction Education and Research (NCCER); and

3. Have at least 2 years of occupational work experience in the field.

4. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in this Area of Specialization not meeting paragraph 2. above may be issued a 3-year Non-Renewable Certificate.

(r) WELDING TECHNOLOGY:

1. Hold a minimum of a high school diploma or GED equivalent; and

2. Hold a valid <u>Certified Welding Educator certificate</u> issued by the <u>American Welding Society</u> (<u>AWS</u>); OR hold a valid <u>Level III certificate in Welding Technology</u> issued by the National Center for Construction Education and Research (<u>NCCER</u>); OR

3. Pass both the Written and Performance portions of the National Occupational Competency Test (NOCTI) in Welding; OR; pass both the Knowledge Base Test and the Skills Demonstration parts of the National Construction Career Tests (NCCT) in Welding; and

4. Have at least 2 years of occupational work experience in the field.

5. As outlined in <u>Rule 505-2-.39</u> (4)(c), applicants in this Area of Specialization not meeting paragraph 2. or 3. above may be issued a 3-year Non-Renewable Certificate.

(4) Technical Specialist Certificate requirements and procedures to convert to clear renewable status are outlined in <u>Rule 505-2-.39</u>, paragraph (4)(a).

(5) In-Field Statement: Educators certified in Trade and Industrial Education are in-field to teach specified Georgia curriculum courses in grades 6-12. Each state-approved curriculum course, with specified certificate fields that are designated as in-field, may be found under certification/Curriculum Assignment Policies (CAPs) on the PSC web site at www.gapsc.com.

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