

**CAREER AND TECHNICAL EDUCATION CERTIFICATE**

Licensure Requirement Details

***HEAVY DUTY EQUIPMENT TECHNOLOGY #4184***

*Prepared by the Office Career and Technical Education*

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**INTRODUCTION**

The following information is provided by the Department of Education to serve as a self-evaluation guide for individuals interested in applying for a career and technical education teaching certificate in the State of New Jersey using the alternate route program. The guide provides information about eligible degrees, employment experience, and self-employment experience that can be used to apply for a certificate. It also contains information regarding required state-issued licenses or credentials, when applicable. Note that this guide is not meant to be used to determine actual eligibility to apply, and it does not contain all of the requirements for an actual certificate application. For complete application information, visit the Office of Licensure and Credentials website at <http://www.nj.gov/education/educators/license/>. **Individuals who do not hold the required credentials listed on this detail page should consult Part F: Other Credentials.**

**PART A: CAREER AND TECHNICAL EDUCATION CERTIFICATE AND PROGRAM**

The holder of a **Heavy Duty Equipment Technology Career and Technical Education Certificate #4184** issued by the New Jersey Department of Education is eligible to teach in the following secondary career and technical education program offered by public school districts in the State of New Jersey:

- ***Construction/Heavy Equipment/Earth Moving Equipment Operator, Program CIP #490202:*** *A program that prepares individuals to apply technical knowledge and skills to operate and maintain a variety of heavy equipment, such as a crawler tractors, motor graders and scrapers, shovels, rigging devices, hoists, and jacks. Includes instruction in digging, ditching, sloping, stripping, grading, and backfilling, clearing and excavating.*

**PART B: REQUIRED STATE-ISSUED OCCUPATIONAL LICENSE OR CREDENTIAL**

Currently, there are no State-issued occupational licenses required for this teaching certificate.

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#### **PART C: APPLICATION FOR CERTIFICATE USING A DEGREE**

##### **Option 1: Bachelor's degree or higher**

Currently, there are no four-year or higher degrees for this occupation in the State of New Jersey. Individuals must apply using **PART C** or **PART D**, below.

##### **Option 2: Associate's degree**

Currently, there are no two-year degrees for this occupation in the State of New Jersey. Individuals must apply using **PART C** or **PART D**, below.

#### **PART D: APPLICATION FOR CERTIFICATE USING EMPLOYMENT EXPERIENCE**

Applicants using this option must meet all of the following requirements, and should review the requirements prior to submitting an application. The requirements include the following:

- Possession and documentation of eligible employment experience\*
- Successful completion of an examination in physiology, hygiene and substance abuse
- Successful completion of a basic skills assessment (PRAXIS I® exams)
- Successful completion of a 24-hour introduction to teaching course

**\*NOTICE:** The New Jersey Department of Education uses the federal Occupational Information Network (O\*NET) as its standard for determining eligible employment experience. O\*NET lists the following additional applicable job titles for the **Heavy Duty Equipment Technology Career and Technical Education Certificate #4184**: *Mobile Heavy Equipment Mechanics (Except Engines), Field Service Technician, Heavy Equipment Mechanic, Mechanic, Construction Equipment Mechanic, Field Mechanic, Mobile Heavy Equipment Mechanic, Forklift Technician, and Heavy Duty Mechanic.*

##### **Requirements:**

1. Applicants must submit evidence of at least four years (8,000 hours) of eligible employment in one or more of the job titles identified above.
  - a) The eligible employment experience must be within 10 years of the date of the application submitted to the New Jersey Department of Education. Employment experience that is older than 10 years will not be accepted.
  - b) The eligible employment experience must be documented by the applicant's employer(s) using the Department of Education's Statement of Employment Experience form. If the applicant's eligible employment experience was obtained from more than one employer during the period of time for which eligible hours will be calculated, then a separate Statement of Employment Experience form must be completed by each employer. Employment experience submitted in any other format will not be accepted. Applicants may download the Statement of Employment Experience form from the Department of Education's website at the following link: [http://www.nj.gov/education/educators/license/forms/voc\\_employer\\_experience.pdf](http://www.nj.gov/education/educators/license/forms/voc_employer_experience.pdf)

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- c) The employer(s) completing a Statement of Employment Experience form(s) will comment on the applicant's work performance and safety practices for the following general occupational competencies and tools as identified in the O\*NET Job Description for this occupation, as follows:

#### **TASKS:**

- *Test mechanical products and equipment after repair or assembly to ensure proper performance and compliance with manufacturers' specifications.*
- *Repair and replace damaged or worn parts.*
- *Operate and inspect machines or heavy equipment to diagnose defects.*
- *Diagnose faults or malfunctions to determine required repairs, using engine diagnostic equipment such as computerized test equipment and calibration devices.*
- *Dismantle and reassemble heavy equipment using hoists and hand tools.*
- *Clean, lubricate, and perform other routine maintenance work on equipment and vehicles.*
- *Examine parts for damage or excessive wear, using micrometers and gauges.*
- *Schedule maintenance for industrial machines and equipment, and keep equipment service records.*
- *Read and understand operating manuals, blueprints, and technical drawings.*
- *Overhaul and test machines or equipment to ensure operating efficiency.*
- *Knowledge of occupational health/OSHA and workplace safety practices.*

#### **TOOLS & TECHNOLOGY**

- *Adjustable wrenches: Adjustable monkey wrenches; Wrenches*
- *Gas welding or brazing or cutting apparatus: Brazing equipment; Flame cutting equipment; Gas welders; Oxyacetylene welding equipment*
- *Hammers: Ball peen hammers; Plastic tip hammers*
- *Locking pliers: Channel lock pliers; Hose-clamp pliers; Locking C-clamp pliers; Vise grip pliers*
- *Punches or nail sets or drifts: Center punches; Pin punches; Starter punches; Three-pin punches*
- *Screwdrivers: Phillips head screwdrivers; Ratcheting screwdrivers; Slotted screwdrivers*
- *Specialty wrenches: Brake bleeder wrenches; Breaker bars; Crowfoot wrenches; Flare nut wrenches*
- *Data base user interface and query software: Database software*
- *Facilities management software: Maintenance management software*
- *Project management software: Recordkeeping software*

Applicants will attach the above list of tasks and tools to the Statement of Employment Experience form(s) prior to submitting the form(s) to an employer(s) for completion. Based upon O\*NET: 49-3042.00 - Mobile Heavy Equipment Mechanics, Except Engines O\*NET website: <http://online.onetcenter.org/link/summary/49-3042.00>

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2. Applicants must pass an examination in physiology, hygiene and substance abuse issues pursuant to *N.J.A.C. 6A:9-5.9*, including the effects of narcotics and alcohol. The examination is administered at the county offices of education. In lieu of this examination, the applicant may present basic military training or college level study in areas such as biology, health or nutrition. To obtain details regarding this test, contact a county office of education: <http://www.state.nj.us/education/counties/>
3. Applicants must pass the PRAXIS I<sup>®</sup> basic skills tests\*, including the following:
  - Praxis Pre-professional Skills Test Reading (#10710)
  - Praxis Pre-professional Skills Test Writing (#20720)
  - Praxis Pre-professional Skills Test Mathematics (#10730)

For more information regarding the PRAXIS I<sup>®</sup> basic skills tests, visit the “New Jersey: Praxis Test Requirements” page of the Employment Testing Service (ETS) website at the following link: <http://www.ets.org/praxis/nj>. Scroll to the bottom of the page to “Career and Technical Education.” The three required tests are in the column to the right. Test preparation information and materials are also available from ETS. On the webpage, go to the “In This Section” selection in the upper left-hand corner and click on “For Test Takers.” Select the PRAXIS I<sup>®</sup> Pre-Professional Skills Test (PPST) link, which goes to the PRAXIS I<sup>®</sup> Overview page. Click on the light blue “Prepare for the Test” tab. Select one of the three PRAXIS I<sup>®</sup> tests. Each link goes to a page that contains free test prep information as well as test guides that may be purchased.

**\*NOTICE:** Applicants who have completed a college degree (two-year, four-year or higher) in any subject area, regardless of GPA, are not required to take the PRAXIS I<sup>®</sup> tests.

4. Applicants must complete a 24-hour introduction to teaching course through an authorized provider, which serves as an introduction to the teaching profession for those individuals who are exploring career options. Topics include classroom management, lesson planning, introduction to New Jersey core curriculum content standards, and assessment of pupil progress. To obtain information regarding this requirement, read the section titled, “New Requirement for Certificate of Eligibility,” on the following website: <http://www.nj.gov/education/educators/license/advisorics/applicant.htm>

### **PART E: APPLICATION FOR CERTIFICATE USING SELF-EMPLOYMENT EXPERIENCE**

Applicants using this option must meet all of the following requirements, and should review the requirements prior to submitting an application. The requirements include the following:

- Possession and documentation of eligible self-employment experience\*
- Successful completion of an examination in physiology, hygiene and substance abuse
- Successful completion of a basic skills assessment (PRAXIS I exams)
- Successful completion of a 24-hour introduction to teaching course

**\*NOTICE:** The New Jersey Department of Education uses the federal North American Industry Classification System (NAICS) as its standard for determining eligible self-employment

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experience. NAICS lists the following applicable code for the **Heavy Duty Equipment Technology Career and Technical Education Certificate #4184**:

➤ *NAICS Code #238910 Site Preparation Contractors*

NAICS website: <http://www.census.gov/epcd/naics02/def/NDEF238.HTM#N23891>

#### **Requirements:**

1. The candidate shall present a notarized letter from a tax preparer and/or an attorney verifying the following:
  - a) The applicant has at least four years (8,000 hours) of eligible self-employment in one or more of the NAICS codes identified above.
  - b) The eligible self-employment experience is within 10 years of the date of the application submitted to the New Jersey Department of Education. Self-employment experience that is older than 10 years will not be accepted.
2. Applicants must pass an examination in physiology, hygiene and substance abuse issues pursuant to *N.J.A.C. 6A:9-5.9*, including the effects of narcotics and alcohol. The examination is administered at the county offices of education. In lieu of this examination, the applicant may present basic military training or college level study in areas such as biology, health or nutrition. To obtain details regarding this test, contact a county office of education: <http://www.state.nj.us/education/counties/>
3. Applicants must pass the PRAXIS I<sup>®</sup> basic skills tests\*, including the following:
  - a) Praxis Pre-professional Skills Test Reading (#10710)
  - b) Praxis Pre-professional Skills Test Writing (#20720)
  - c) Praxis Pre-professional Skills Test Mathematics (#10730)

For more information regarding the PRAXIS I<sup>®</sup> basic skills tests, visit the “New Jersey: Praxis Test Requirements” page of the Employment Testing Service (ETS) website at the following link: <http://www.ets.org/praxis/nj>. Scroll to the bottom of the page to “Career and Technical Education.” The three required tests are in the column to the right. Test preparation information and materials are also available from ETS. On the webpage, go to the “In This Section” selection in the upper left-hand corner, and click on “For Test Takers.” Select the PRAXIS I<sup>®</sup> Pre-Professional Skills Test (PPST) link, which brings you to the PRAXIS I<sup>®</sup> Overview page. Click on the light blue “Prepare for the Test” tab. Select one of the three PRAXIS I<sup>®</sup> tests. Each link goes to a page that contains free test prep information as well as test guides that may be purchased.

**\*NOTICE:** Applicants who have completed a college degree (two-year, four-year or higher) in any subject area, regardless of GPA, are not required to take the PRAXIS I<sup>®</sup> tests.

4. Applicants must complete a 24-hour introduction to teaching course through an authorized provider, which serves as an introduction to the teaching profession for those individuals who are exploring career options. Topics include classroom management, lesson planning, introduction to New Jersey core curriculum content standards, and assessment of pupil progress. To obtain information regarding this requirement, read the

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section titled, “New Requirement for Certificate of Eligibility,” on the following website:  
<http://www.nj.gov/education/educators/license/advisories/applicant.htm>

#### **PART F: OTHER CREDENTIALS**

Individuals who possess a degree and/or employment or self-employment experience not listed on this worksheet may submit their degree and/or employment or self-employment experience along with an application for a career and technical education certificate to the Department of Education, which will review the submission in order to determine eligibility. There is a fee associated with this service. However, the Department of Education does not guarantee that credentials submitted will be accepted by the Department of Education as satisfying the requirements for a career and technical education certificate. For more information, visit the Office of Licensure and Credentials homepage at <http://www.nj.gov/education/educators/license/>

#### **PART G: MILITARY SERVICE/TROOPS TO TEACHERS**

Individuals with military service may have obtained qualifying employment experience, education, and/or training during their military service via the New Jersey Troops to Teachers program. The Troops to Teachers program (TTT) assists eligible military personnel with the transition to a new career as public school teachers. The New Jersey TTT office will provide participants with counseling and assistance regarding certification requirements, routes to state teacher certification and employment leads. For information, contact the New Jersey Department of Education Troops to Teachers office at 800-680-0884 or e-mail [tttnj@doe.state.nj.us](mailto:tttnj@doe.state.nj.us)  
New Jersey Troops to Teachers Website: <http://www.nj.gov/njded/ttnj>

#### **PART H: ARE YOU LOOKING FOR A TEACHING JOB IN NEW JERSEY?**

Visit NJHire today, the New Jersey Department of Education’s free education recruitment website. NJ HIRE Website: <http://www.njhire.com>