

CAREER AND TECHNICAL EDUCATION CERTIFICATE

Licensure Requirement Details

AIRCRAFT TECHNOLOGY #4180

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 an **Aircraft Technology Career and Technical Education Certificate #4180** issued by the New Jersey Department of Education is eligible to teach in the following secondary career and technical education programs offered by public school districts in the State of New Jersey:

- ***Aircraft Powerplant Technology/Technician, Program CIP Code #470608:*** A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of aircraft powerplant and related systems. Instruction includes engine inspection and maintenance, lubrication and cooling, electrical and ignition systems, carburetion, fuels and fuel systems, propeller and fan assemblies.
- ***Airframe Mechanics & Aircraft Maint. Technol./Tech., Program CIP Code #470607:*** A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all aircraft components other than engines, propellers, avionics, and instruments. Includes instruction in layout and fabrication of sheet metal, fabric,

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wood, and other materials into structural members, parts, and fittings, and replacement of damaged or worn parts such as control cables and hydraulic units.

PART B: REQUIRED STATE-ISSUED LICENSE OR CREDENTIAL

Currently, there are no State-issued occupational licenses or credentials required for this teaching certificate. Applicants must apply under the requirements of **PART D** or **PART E**, below.

PART C: APPLICATION FOR CERTIFICATE USING A DEGREE

Option 1: Bachelor's degree or higher

Currently, there are no eligible four-year or higher degrees for this teaching certificate in the State of New Jersey. Applicants must apply under the requirements of **PART D** or **PART E**, below.

Option 2: Associate's degree

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 of an eligible degree and grade point average (GPA)
- Possession and documentation of an eligible employment experience
- Successful completion of an examination in physiology, hygiene and substance abuse issues
- Successful completion of a 24-hour introduction to teaching course

Requirements:

1. Applicants must submit the following:
 - a) An official, sealed copy of their transcript(s) for an associate's degree in a Department-approved subject area for the certificate. Applicants must have completed at least 30 credits in a coherent sequence of courses in the subject area from a regionally accredited college or university. Examples of eligible subject areas include the following:
 - *Aviation Maintenance Technology*
 - b) Applicants with a GPA that is below 2.75 cannot apply for a certificate using their degree. In such cases, applicants must apply in accordance with the requirements of **Part D** or **Part E**, below.
2. Applicants who graduate on or after September 1, 2004, with a GPA that is below 2.75 cannot apply for a certificate using their degree. In such cases, applicants must apply in accordance with the requirements of **Part D** or **Part E**, below.

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3. Applicants using an associate's degree must also submit evidence of a minimum of two years (4,000 hours) of full-time or part-time employment in an eligible occupational as per the requirements in 1(a) – (c) Part D, below.
4. 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/>
5. 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/advisories/applicant.htm>

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 **Aircraft Technology Career and Technical Education Certificate #4180**: *Aircraft Mechanics and Service Technicians, Aircraft Mechanic, Aircraft Maintenance Technician, Aircraft Technician, Aircraft Maintenance Director, Aircraft Maintenance Supervisor, Aircraft Restorer, Aviation Maintenance Technician, and Helicopter 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

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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

- 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:

- *Read and interpret maintenance manuals, service bulletins, and other specifications to determine the feasibility and method of repairing or replacing malfunctioning or damaged components.*
- *Inspect completed work to certify that maintenance meets standards and that aircraft are ready for operation.*
- *Maintain repair logs, documenting all preventive and corrective aircraft maintenance.*
- *Conduct routine and special inspections as required by regulations.*
- *Examine and inspect aircraft components, including landing gear, hydraulic systems, and deicers to locate cracks, breaks, leaks, or other problems.*
- *Inspect airframes for wear or other defects.*
- *Maintain, repair, and rebuild aircraft structures, functional components, and parts such as wings and fuselage, rigging, hydraulic units, oxygen systems, fuel systems, electrical systems, gaskets, and seals.*
- *Measure the tension of control cables.*
- *Replace or repair worn, defective, or damaged components, using hand tools, gauges, and testing equipment.*
- *Measure parts for wear, using precision instruments.*
- *Knowledge of workplace safety/OSHA practices and procedures.*

TOOLS & TECHNOLOGY:

- *Hammers: Ball peen hammers; Plastic tip hammers*
- *Integrated maintenance information systems: Aircraft maintenance management systems; LTB/400 maintenance management system; MxManager; S.M.A.R.T aircraft maintenance tracking*
- *Lifts: Aircraft test stands; Mechanical lifts; Power lifts*
- *Metal cutters: Offset left aviation snips; Offset right aviation snips; Sheet metal breakers; Straight cut aviation snips*
- *Punches or nail sets or drifts: Brass punches; Center punches; Pin punches; Taper punches*
- *Analytical or scientific software: CaseBank SpotLight; CynapSys Virtual DER; Engine analysis software*

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- *Data base user interface and query software: Metis Systems MainTrack; Mxi Technologies Maintenix; Pentagon 2000SQL; Sacramento Sky Ranch Mechanic's Toolbox*
- *Facilities management software: Access Software AIRPAX; Maintenance information databases; Maintenance planning software; Maintenance record software*
- *Information retrieval or search software: Computerized aircraft log manager CALM software; Technical manual database software*
- *Inventory management software: Supply system 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 the O*NET Information page 49-3011.00 - Aircraft Mechanics and Service Technicians. O*NET website:

<http://online.onetcenter.org/link/summary/49-3011.00>

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[®] 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[®] 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[®] Pre-Professional Skills Test (PPST) link, which goes to the PRAXIS I[®] Overview page. Click on the light blue “Prepare for the Test” tab. Select one of the three PRAXIS I[®] 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[®] 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 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 experience. NAICS lists the following applicable code for the **Aircraft Technology Career and Technical Education Certificate #4180**:

- *NAICS #488190, Aircraft maintenance and repair services (except factory conversion), Maintenance and repair services, aircraft*

NAICS Website: <http://www.census.gov/epcd/naics02/def/ND488190.HTM>

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 the NAICS code 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[®] 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[®] basic skills tests, visit the “New Jersey: Praxis Test Requirements” page of the Employment Testing Service (ETS) website at the

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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® Pre-Professional Skills Test (PPST) link, which goes to the PRAXIS I® Overview page. Click on the light blue “Prepare for the Test” tab. Select one of the three PRAXIS I® 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® 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/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.
New Jersey Troops to Teachers Website: <http://www.nj.gov/njded/tttnj>

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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>

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