

State Board of Engineers, Land Surveyors, and Geologists – Military Occupational Crosswalk

Licensed Occupations: [Professional Engineer](#), [Professional Land Surveyor](#), [Professional Geologist](#), [Engineer-In-Training](#), [Land Surveyor-In-Training](#), [Geologist-In-Training](#)

Air Force

Related Occupations (Military Occupation Code):

- Civil Engineer (32E1A; 32E1C; 32E1E; 32E1F; 32E1G; 32E1I; 32E1J; 32E1W; 32E3A; 32E3C; 32E3E; 32E3F; 32E3G; 32E3I; 32E3J; 32E3W; 32E4W; 32E4; 32EXA; 32EXC; 32EXE; 32EXF; 32EXG; 32EXJ; 32EX) [Officer] **Page 2**
- Bioenvironmental Engineer (43E1C; 43E3C; 43E4C; 43EXC) [Officer] **Page 3**
- Engineering Specialist (3E511; 3E531; 3E551; 3E571) [Enlisted] **Page 4**

Army

Related Occupations (Military Occupation Code):

- Engineer Officer (12A) [Officer] **Page 5**
- Technical Engineer (12T) [Enlisted] **Page 6**
- Geospatial Engineer (12Y) [Enlisted] **Page 7**
- Geospatial Intelligence Imagery Analyst (35G) [Enlisted] **Page 8**
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Coast Guard

- Civil Engineer (55) [Commissioned Officer] **Page 10**

Marines

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- Utilities Officer (1120) [Officer] **Page 11**
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Navy

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State Board of Engineers, Land Surveyors, and Geologists
Professional Engineer

Experience Requirement	EIT Experience Required - Applicants who apply for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).
Education Requirement	<p>Bachelor's Degree - A candidate for licensure as a professional engineer shall submit proof of graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology).</p> <p>*The Board will accept applicants that have been approved to take the Fundamentals of Engineering examination with one of the following education qualifications:</p> <ul style="list-style-type: none"> • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	2 Examinations - Applicant must have achieve a passing score on the National Council of Examiners for Engineering and Surveying (NCEES) Principles and Practice of Engineering Examination (PE) and the NCEES Fundamentals of Engineering (FE) exam.
Profession definition	An individual licensed and registered by the state board to engage in the practice of engineering. Engineering is the application of mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems.

Air Force
Civil Engineer¹

Job Duties	<ul style="list-style-type: none"> • Determine requirements, establish plans, provide designs, and direct operations, maintenance, repair, alteration, addition, and construction of facilities and utility system. • Propose, design, and facilitate construction projects. • Coordinate activities with local, state, federal, and host country agencies. • Negotiate with architecture-engineering firms. • Administer competitive bid and contract awards • Oversee the repair, maintenance, and operation of heavy equipment. • Execute construction, operation, and repair of structures and facilities. • Clearing and emplacing obstacles such as minefields. • There are a variety of civil engineering disciplines, such as civil, electrical, environmental, industrial, mechanical, and developmental
Education/ Training	<ul style="list-style-type: none"> • Bachelor's degree in civil, electrical, environmental, construction, architectural, industrial, or mechanical engineering, biomedical, chemical, petroleum, aerospace, or construction management
Qualifications	<ul style="list-style-type: none"> • Knowledge of contingency engineering, construction, repair management and protection and prevention procedures • Completion of necessary Air Force Institute of Technology courses • Minimum 12 months' experience in subspecialty field • Normal color vision and depth perception • Completion of Officer Training School (OTS), Air Force Academy (AFA) or Air Force Reserve Officer Training Corps (AFROTC)
Related Credentials Offered	<p>Principles and Practice of Engineering (PE) Exam:</p> <ul style="list-style-type: none"> ○ Architectural Engineering ○ Civil ○ Electrical and Computer ○ Environmental ○ Mechanical ○ Structural

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>A candidate for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).</p> <p>Air Force currently requires servicemembers to have one year of experience in their engineering specialty to perform the job.</p> <p>If candidate does not have EIT certificate, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum. Experience attained during time of service may count towards years of experience requirement.</p>
Education Requirement	<p>The servicemember holds a bachelor's degree in Engineering.</p> <p>Satisfies education requirement for licensure <u>if</u> degree program is accredited by ABET.</p> <p>If servicemember's degree is unaccredited, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum.</p> <p>Air Force currently requires servicemembers to have one year of experience in their engineering specialty to perform the job.</p>
Examination Requirement	<p>A candidate for licensure must first pass the FE examination to receive an EIT certificate.</p> <p>After that, a candidate can only take the PE exam after obtaining the EIT certificate and accruing four or more years of progressive experience in engineering work performed after the issuance of the EIT certificate.</p> <p>The Air Force does not require servicemembers to pass the FE examination or hold a license to perform job in the military but does offer servicemembers the ability to sit for the PE examination during time of service.</p> <p>A candidate for licensure must demonstrate proof of passing both the FE & PE examinations ² to satisfy examination requirement.</p>

¹ 32E1A; 32E1C; 32E1E; 32E1F; 32E1G; 32E1I; 32E1J; 32E1W; 32E3A; 32E3C; 32E3E; 32E3F; 32E3G; 32E3I; 32E3J; 32E3W; 32E4W; 32E4; 32EXA; 32EXC; 32EXE; 32EXF; 32EXG; 32EXJ; 32EX) [Officer]

State Board of Engineers, Land Surveyors, and Geologists
Professional Engineer

Experience Requirement	EIT Experience Required - Applicants who apply for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).
Education Requirement	<p>Bachelor's Degree - A candidate for licensure as a professional engineer shall submit proof of graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology).</p> <p>*The Board will accept applicants that have been approved to take the Fundamentals of Engineering examination with one of the following education qualifications:</p> <ul style="list-style-type: none"> • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	2 Examinations - Applicant must have achieve a passing score on the National Council of Examiners for Engineering and Surveying (NCEES) Principles and Practice of Engineering Examination (PE) and the NCEES Fundamentals of Engineering (FE) exam.
Profession definition	An individual licensed and registered by the state board to engage in the practice of engineering. Engineering is the application of mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems.

Air Force
Bioenvironmental Engineer (43E1C; 43E3C; 43E4C; 43EXC) [Officer]

Job Duties	<ul style="list-style-type: none"> • Ensure a safe and healthy workplace for Airmen through applied knowledge of engineering and sciences • Provide essential information necessary for decision-making in areas involving weapons systems and associate processes, facilities, and chemical, biological, and radiological issues • Advise command and staff agencies on operational risk management • Perform a variety of daily duties, including health-risk assessments, chemical, biological, and radiological identification, and control and modernizing health facilities
Education/ Training	<ul style="list-style-type: none"> • Bachelor of Science in engineering from an ABET-accredited institution
Qualifications	<ul style="list-style-type: none"> • Completion of qualifying Bioenvironmental Engineering course • Minimum of 24 months of experience in bioenvironmental engineering assignments • Completion of 5.5-week Commissioned Officer training course
Related Credentials Offered	<ul style="list-style-type: none"> • Certified Hazardous Materials Practitioner (CHMP) • Certified Industrial Hygienist (CIH) • Certified Process Safety Auditor (CPSA) • Certified Safety Professional (CSP) • Registered Radiation Protection Technologist (RRPT)

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>A candidate for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).</p> <p>Air Force currently requires servicemembers to have 24 months of experience in their bioenvironmental engineering to perform the job.</p> <p>If candidate does not have EIT certificate, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum. Experience attained during time of service may count towards years of experience requirement.</p>
Education Requirement	<p>The servicemember holds a bachelor's degree in engineering from an ABET-accredited institution.</p> <p>Satisfies education requirement for licensure.</p>
Examination Requirement	<p>A candidate for licensure must first pass the FE examination to receive an EIT certificate.</p> <p>After that, candidates can only take the PE exam after obtaining the EIT certificate and accruing four or more years of progressive experience in engineering work performed after the issuance of the EIT certificate.</p> <p>The Air Force does not require servicemembers to pass either examination or hold a license to perform job in the military.</p> <p>A candidate for licensure must demonstrate proof of passing both the FE & PE examinations to satisfy examination requirement.</p>

State Board of Engineers, Land Surveyors, and Geologists
Engineer-in-Training (EIT)

Experience Requirement	No Experience Required - Applicant may submit proof of eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum. The experience must be of a grade and character sufficient to enable the candidate to independently learn through practice the principles of mathematics and science attained through formal education. Academic training in engineering subjects and progressive experience in engineering work may be counted towards the education requirement.
Education Requirement	<p>To qualify for the fundamentals of engineering examination, the candidate shall possess one of the following qualifications:</p> <ul style="list-style-type: none"> • Graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology). A student who has completed 2 years in an ABET-accredited undergraduate curriculum in the United States and has maintained current enrollment may sit for the fundamentals of engineering examination but will not be eligible for certification as an engineer-in-training until the student provides proof of graduation. • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	1 Examination - Applicant must achieve a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of engineering examination.
Profession definition	A candidate for licensure as a professional engineer, who has been granted a certificate as an engineer-in-training after successfully passing the prescribed written examination in fundamental engineering subjects.

Air Force
Engineering Specialist (3E511; 3E531; 3E551; 3E571) [Enlisted]

Job Duties	<ul style="list-style-type: none"> • Develop engineering designs using CAD software. • Prepare cost estimates, performance work statements, and specifications for existing and proposed facilities. • Design concrete and asphalt pavements. • Perform simple load calculations for horizontal and vertical construction. • Act as liaison between design, review, construction, and using agencies. • Performs drafting duties. • Interpret rough engineering sketches to produce working drawings using manual and CAD techniques. • Produce architectural, structural, civil, mechanical, and electrical drawings. • Update Base Comprehensive Plans (BCP) and maintains record drawings. • Plot and reproduce drawings. • Performs GIS duties. Link computerized maps to databases displaying detailed information via the web. • Create and populate feature codes. • Performs surveying duties. • Conduct reconnaissance, site location, construction, and mapping surveys while operating manual and electronic surveying equipment. • Collect, convert, and present field survey data for civil engineering projects.
Education/ Training	<p>Training:</p> <ul style="list-style-type: none"> • The following training is mandatory for award of the Air Force Service Code indicated: <ul style="list-style-type: none"> ○ 3E531. Completion of the Engineering Apprentice course. ○ 3E571. Completion of the Civil Engineer Management Craftsman course.
Qualifications	<ul style="list-style-type: none"> • Completion of high school or general educational development equivalency, • Courses in algebra, geometry, trigonometry, computer operations, and software application is mandatory. • Completion of high school courses in drafting, physics, and chemistry is desirable.
Related Credentials Offered	<ul style="list-style-type: none"> • Aggregate/Soils Base Testing Technician • Building Energy Modeling Professional • Certified Energy Manager • Certified Survey Technician • Construction Materials (multiple kinds)

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	No experience requirement to qualify for EIT certification.
Education Requirement	<p>Candidate for certification must submit proof of graduation from an ABET accredited undergraduate engineering curriculum to satisfy education requirement.</p> <p>OR</p> <p>Demonstrate <u>eight years of progressive experience in engineering work and knowledge</u> during time of service in order to satisfy education requirement for certification.</p> <p>Servicemembers completion of Air Force coursework, progressive experience, military training, and certifications earned during the time of service may count towards years of experience requirement for EIT certificate.</p>
Examination Requirement	Candidate must pass the National Council of Examiners for Engineering and Surveying fundamentals of engineering examination to qualify for EIT certification.

State Board of Engineers, Land Surveyors, and Geologists
Professional Engineer

Experience Requirement	EIT Experience Required - Applicants who apply for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).
Education Requirement	<p>Bachelor's Degree - A candidate for licensure as a professional engineer shall submit proof of graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology).</p> <p>*The Board will accept applicants that have been approved to take the Fundamentals of Engineering examination with one of the following education qualifications:</p> <ul style="list-style-type: none"> • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	2 Examinations - Applicant must have achieve a passing score on the National Council of Examiners for Engineering and Surveying (NCEES) Principles and Practice of Engineering Examination (PE) and the NCEES Fundamentals of Engineering (FE) exam.
Profession definition	An individual licensed and registered by the state board to engage in the practice of engineering. Engineering is the application of mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems.

Army
Engineer Officer (12A) [Officer]

Job Duties	<ul style="list-style-type: none"> • Manages a wide range of crucial engineering projects, including constructing roads, bases, bridges, and airfields, supporting disaster relief and civilian rescue efforts, and researching alternative engineering technology • Responsible for providing full support to the wide range of engineering duties in the Army • Help build structures, develop civil works programs, and even provide combat support • Emplace demolitions, conduct reconnaissance, and support maneuver units with mobility, counter mobility, and survivability • Construct roads, buildings, military bases, airfields, etc. • Construct, emplace or assemble numerous bridges • Perform search and rescue operations • Train the force, write new policy, and research alternative engineering technology
Education/ Training	<ul style="list-style-type: none"> • Four-year degree in Engineering • Job training for an engineer officer begins with an undergraduate degree and the Basic Officer Leadership Course. Other opportunities may include taking courses at graduate schools and other military institutions.
Qualifications	<ul style="list-style-type: none"> • Self-discipline, confidence, and intelligence • Physically and mentally fit to perform under pressure • Ability to make quick decisions • Capable of bearing numerous responsibilities
Related Credentials Offered	<ul style="list-style-type: none"> • Certification in Clinical Engineering (CCE) • Certified Engineering Technologist (CT) • Principles and Practice of Engineering (PE) Exam: <ul style="list-style-type: none"> ○ Architectural Engineering ○ Civil ○ Environmental

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>A candidate for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).</p> <p>The Army does not have any minimum time period for servicemember's experience to perform the job.</p> <p>If candidate does not have EIT certificate, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum. Experience attained during time of service may count towards years of experience requirement.</p>
Education Requirement	<p>The servicemember holds a bachelor's degree in Engineering.</p> <p>Satisfies education requirement for licensure if degree program is accredited by ABET.</p> <p>If servicemember's degree is unaccredited, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum.</p>
Examination Requirement	<p>A candidate for licensure must first pass the FE examination to receive an EIT certificate.</p> <p>After that, candidates can only take the PE exam after obtaining the EIT certificate and accruing four or more years of progressive experience in engineering work performed after the issuance of the EIT certificate.</p> <p>The Army does not require servicemembers to pass the FE examination or hold a license to perform job in the military but does offer servicemembers the ability to sit for the PE examination during time of service.</p> <p>Candidate for licensure must demonstrate proof of passing both the FE & PE examinations to satisfy examination requirement.</p>

State Board of Engineers, Land Surveyors, and Geologists
Engineer-in-Training (EIT)

Experience Requirement	No Experience Required - Applicant may submit proof of eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum. The experience must be of a grade and character sufficient to enable the candidate to independently learn through practice the principles of mathematics and science attained through formal education. Academic training in engineering subjects and progressive experience in engineering work may be counted towards the education requirement.
Education Requirement	<p>To qualify for the fundamentals of engineering examination, the candidate shall possess one of the following qualifications:</p> <ul style="list-style-type: none"> • Graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology). A student who has completed 2 years in an ABET-accredited undergraduate curriculum in the United States and has maintained current enrollment may sit for the fundamentals of engineering examination but will not be eligible for certification as an engineer-in-training until the student provides proof of graduation. • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	1 Examination - Applicant must achieve a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of engineering examination.
Profession definition	A candidate for licensure as a professional engineer, who has been granted a certificate as an engineer-in-training after successfully passing the prescribed written examination in fundamental engineering subjects.

Army
Technical Engineer (12T) [Enlisted]

Job Duties	<ul style="list-style-type: none"> • Participates in construction site development in areas such as technical investigation, surveys, drafts, and construction plans/specifications. • Conduct land surveys, make maps, and prepare detailed plans for construction projects. • Perform field and laboratory tests on construction materials, surveys, and drafts • Draw topographic maps and charts using CAD systems and software • Conduct geodetic and construction surveys and results utilizing Automated Integrated Survey Instruments and Global Positioning Survey Technology • Draw diagrams for wiring and plumbing of structures • Provide technical support for vertical and horizontal construction projects • Build scale models of land areas that show hills, lakes, roads, and buildings
Education/ Training	<ul style="list-style-type: none"> • Job training for technical engineer requires 10 weeks of Basic Combat Training and 17 weeks of Advanced Individual Training. Part of this time is spent in the classroom and part in the field with on-the-job instructions. • Skills learned: <ul style="list-style-type: none"> ○ Surveying and drafting techniques ○ Aerial photo interpretation ○ Architectural and structural drawing • Must have a high school diploma or a GED certificate
Qualifications	<ul style="list-style-type: none"> • Ability to convert ideas into drawings • Interest in maps and charts • Working with Computer Aided Drafting technology • Interest in algebra, geometry, and trigonometry
Related Credentials Offered	<ul style="list-style-type: none"> • Certified Associate in Project Management • Certified Construction Contract Administrator • Certified Environmental Auditor • Certified Environmental Professional • Certified Environmental Scientist • Principles and Practice of Engineering (PE) Exam: <ul style="list-style-type: none"> ○ Architectural Engineering ○ Civil ○ Environmental

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	No experience requirement to qualify for EIT certification.
Education Requirement	<p>Candidate for certification must submit proof of graduation from an ABET accredited undergraduate engineering curriculum to satisfy education requirement.</p> <p align="center">OR</p> <p>Demonstrate <u>eight years of progressive experience in engineering work and knowledge</u> in order to satisfy education requirement for certification.</p> <p>Servicemembers completion of Army coursework, progressive experience, military training, and certifications earned during the time of service may count towards years of experience requirement for EIT certificate.</p>
Examination Requirement	Candidate must pass the National Council of Examiners for Engineering and Surveying fundamentals of engineering examination to satisfy requirement for EIT certification.

State Board of Engineers, Land Surveyors, and Geologists
Land Surveyor-in-Training

Experience Requirement	Experience or Education Required - If the applicant is not a graduate from an undergraduate civil engineering curriculum in the United States accredited by the Accreditation Board for Engineering and Technology (ABET) including a minimum of 10 credit hours of instruction in surveying or graduation from an undergraduate 4-year surveying curriculum in the United States accredited by ABET or did not graduate from an associate's degree program in a surveying technology curriculum accredited by ABET applicant can submit proof of six years of progressive experience in surveying, and knowledge, skill and education equivalent to that attained through graduation from an approved land surveying or civil engineering curriculum. The experience must reflect diversification of field and office work, with no less than 25% of the experience in either area and be of a grade and character sufficient to enable the candidate to independently learn through practice the surveying skills and principles of mathematics attained through formal education.
Education Requirement	Associate's or bachelor's degree - An applicant for the surveyor-in-training certificate shall show satisfactory evidence of: <ul style="list-style-type: none"> • Graduation from an approved civil engineering curriculum of at least four years, including no less than ten credit hours instruction in surveying. A student who has completed 2 years of a 4-year surveying curriculum may sit for the fundamentals of surveying examination but will not be eligible for certification as a surveyor-in-training until applicant provides proof of graduation. • Six or more years of progressive experience in surveying and knowledge, skill and education deemed equivalent, in accordance with board regulation, to graduation from an approved curriculum in land surveying or civil engineering; or • An associate degree in an approved surveying technology curriculum
Examination Requirement	1 Examination - A candidate for certification as a surveyor-in-training shall achieve a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of surveying examination.
Profession definition	A candidate for licensure as a professional land surveyor who has been granted a certificate as a surveyor-in-training after successfully passing the prescribed written examination in fundamental land surveying subjects.

Army
Geospatial Engineer (12Y) [Enlisted]

Job Duties	<ul style="list-style-type: none"> • Responsible for using geographic data that supports military/civilian operations for Disaster Relief and Homeland Security • Collect, analyze, and distribute geospatial information to represent the terrain and its possible effects • Extract geographic data from satellite imagery, aerial photography, and field reconnaissance • Create geographic data and compile them into maps • Help commanders visualize the battlefield • Create and maintain multiple geospatial databases • Prepare military-style briefs covering all aspects of the terrain
Education/ Training	<ul style="list-style-type: none"> • Job training for a geospatial engineer requires 10 weeks of Basic Combat Training and 20 weeks of Advanced Individual Training. Part of this time is spent in the classroom and part in the field with on-the-job instructions, including on-the-job instruction for geographic information systems. • Skills learned: <ul style="list-style-type: none"> ○ Basic knowledge of Geographic Information Systems ○ Geographic analysis ○ Imagery interpretation and exploitation
Qualifications	<ul style="list-style-type: none"> • Interest in geography, maps, and charts • Ability to demonstrate basic computer skills and work with drafting equipment • Conceptualize ideas into computer-generated 2-D/3-D geospatial products • Preference in a technical career field
Related Credentials Offered	<ul style="list-style-type: none"> • Certified Mapping Scientist GIS/LIS • Certified GIS/LIS Technologist • Certified Mapping Scientist, Remote Sensing • Certified Photogrammetric Technologist • Certified Photogrammetrist

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>If candidate for licensure is a graduate from an approved civil engineering curriculum or holds an associate degree in an approved surveying technology curriculum:</p> <p>Experience requirement is met.</p> <p>If candidate for licensure does not hold a degree from an approved civil engineering curriculum or an associate degree in an approved surveying technology curriculum:</p> <p>Candidate must demonstrate completion of <u>six or more years of progressive experience in surveying and knowledge, skill, and education.</u></p> <p>Army Geospatial Engineer's job duties, advanced individual training, and credentials earned during time-of-service may count towards years of experience requirement.</p>
Education Requirement	<p>Candidate must demonstrate proof of an associate degree in an approved surveying technology curriculum.</p> <p>OR</p> <p>Candidate must demonstrate completion of <u>six or more years of progressive experience in surveying and knowledge, skill, and education.</u></p> <p>Army Geospatial Engineer's job duties, advanced individual training, and credentials earned during time-of-service may count towards years of experience requirement.</p>
Examination Requirement	<p>Candidate must receive a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of surveying examination to satisfy requirement for certification.</p>

State Board of Engineers, Land Surveyors, and Geologists
Land Surveyor-in-Training

Experience Requirement	Experience or Education Required - If the applicant is not a graduate from an undergraduate civil engineering curriculum in the United States accredited by the Accreditation Board for Engineering and Technology (ABET) including a minimum of 10 credit hours of instruction in surveying or graduation from an undergraduate 4-year surveying curriculum in the United States accredited by ABET or did not graduate from an associate's degree program in a surveying technology curriculum accredited by ABET applicant can submit proof of six years of progressive experience in surveying, and knowledge, skill and education equivalent to that attained through graduation from an approved land surveying or civil engineering curriculum. The experience must reflect diversification of field and office work, with no less than 25% of the experience in either area and be of a grade and character sufficient to enable the candidate to independently learn through practice the surveying skills and principles of mathematics attained through formal education.
Education Requirement	Associate's or bachelor's degree - An applicant for the surveyor-in-training certificate shall show satisfactory evidence of: <ul style="list-style-type: none"> • Graduation from an approved civil engineering curriculum of at least four years, including no less than ten credit hours instruction in surveying. A student who has completed 2 years of a 4-year surveying curriculum may sit for the fundamentals of surveying examination but will not be eligible for certification as a surveyor-in-training until applicant provides proof of graduation. • Six or more years of progressive experience in surveying and knowledge, skill and education deemed equivalent, in accordance with board regulation, to graduation from an approved curriculum in land surveying or civil engineering; or • An associate degree in an approved surveying technology curriculum
Examination Requirement	1 Examination - A candidate for certification as a surveyor-in-training shall achieve a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of surveying examination.
Profession definition	A candidate for licensure as a professional land surveyor who has been granted a certificate as a surveyor-in-training after successfully passing the prescribed written examination in fundamental land surveying subjects.

Army
Geospatial Intelligence Imagery Analyst (35G) [Enlisted]

Job Duties	<ul style="list-style-type: none"> • Responsible for analyzing overhead and aerial imagery developed by photographic and electronic means • Provide Army personnel with critical information about enemy forces, potential battle areas and combat operations support • Produce intelligence by analyzing images, fixed/moving targets, and geospatial data • Identify military installations, facilities, weapon systems, military equipment, and defenses • Determine the location and dimensions of objects • Conduct Battle Damage Assessment
Education/ Training	<ul style="list-style-type: none"> • Job training for a geospatial intelligence imagery analyst requires 10 weeks of Basic Combat Training and 24 weeks of Advanced Individual Training with on-the-job instruction. Part of this time is spent in the classroom and in the field. • Skills learned: <ul style="list-style-type: none"> ○ Planning overhead and aerial imagery collection ○ Preparing maps, charts, reports, and Geospatial-Intelligence ○ Using computer systems and imagery exploitation software ○ Analysis of fixed/moving target indicators, geospatial data, and overhead/aerial images
Qualifications	<ul style="list-style-type: none"> • Interest in reading maps and charts • Gathering information and studying its meaning • Ability to think, speak and write clearly
Related Credentials Offered	<ul style="list-style-type: none"> • GEOINT Professional Certification Fundamentals • GEOINT Professional Certification Imagery Analysis • Certified Collection Management Professional - Fundamental • GEOINT Professional Certification GEOINT Collection • Certified Photogrammetric Technologist

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>If candidate for licensure is a graduate from an approved civil engineering curriculum or holds an associate degree in an approved surveying technology curriculum:</p> <p>Experience requirement is met.</p> <p>If candidate for licensure does not hold a degree from an approved civil engineering curriculum or an associate degree in an approved surveying technology curriculum:</p> <p>Candidate must demonstrate completion of <u>six or more years of progressive experience in surveying and knowledge, skill, and education.</u></p> <p>Army Geospatial Intelligence Imagery Analyst job duties, advanced individual training, and credentials earned during time-of-service may count towards years of experience requirement.</p>
Education Requirement	<p>Candidate must demonstrate proof of an associate degree in an approved surveying technology curriculum.</p> <p>OR</p> <p>Candidate must demonstrate completion of <u>six or more years of progressive experience in surveying and knowledge, skill, and education.</u></p> <p>Army Geospatial Intelligence Imagery Analyst job duties, advanced individual training, and credentials earned during time-of-service may count towards years of experience requirement.</p>
Examination Requirement	<p>Candidate must receive a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of surveying examination to satisfy requirement for certification.</p>

State Board of Engineers, Land Surveyors, and Geologists
Geologist-in-Training (GIT)

Experience Requirement	No experience required for certification.
Education Requirement	<p>Bachelor's Degree - To qualify for the fundamentals of geology examination, the candidate shall possess one of the following qualifications:</p> <ul style="list-style-type: none"> • Graduation from an accredited institution of higher learning in the United States, having majored in geology, geophysics, geochemistry, or engineering geology. A student who has completed 2 years in a program and has maintained current enrollment may, with Board approval, sit for the fundamentals of geology examination, but will not be eligible for certification as a geologist-in-training until the student provides proof of graduation. • Graduation from an accredited institution of higher learning in the United States. that does not offer a major in geology, geophysics, geochemistry, or engineering geology, having completed 30 semester hours or 45 quarter hours or an equivalent amount of geological education. A student who has completed 2 years in a program and has maintained current enrollment may, with Board approval, sit for the fundamentals of geology examination, but will not be eligible for certification as a geologist-in-training until the student provides proof of graduation. • Graduation from a foreign college or university that World Education Services or other Board-approved professional evaluation service deems equivalent to a bachelor's degree in geology, geophysics, geochemistry, or engineering geology from an accredited institution of higher learning in the United States.
Examination Requirement	1 Examination - A candidate for certification as a geologist-in-training shall achieve a passing score on the Association of State Boards of Geology fundamentals of geology examination. Applicants must have already taken and passed the Structural Geology and Field Methods courses to be approved to take the Fundamentals of Geology exam.
Profession definition	A candidate for licensure as a professional geologist who has been granted a certificate as a geologist-in-training after successfully passing the required written examination in fundamental geology subjects.

Army
Petroleum Laboratory Specialist (92L) [Enlisted]

Job Duties	<ul style="list-style-type: none"> • Primarily responsible for supervising or conducting laboratory tests on petroleum, oil, and lubricant products. • Evaluate test results with specification requirements and makes recommendations regarding product disposition • Receive samples and conduct tests on petroleum products • Report findings in accordance with American Society for Testing and Materials testing methods • Apply fire prevention and safety control procedures in handling volatile products
Education/ Training	<ul style="list-style-type: none"> • Job training for a petroleum laboratory specialist requires 10 weeks of Basic Combat Training and 10 weeks of Advanced Individual Training with on-the-job instructions. Part of this time is spent in the classroom and part in the field, including practice in testing different products. • Skills learned: <ul style="list-style-type: none"> ○ Testing methods ○ Use of lab equipment, such as centrifuges and spectrometer
Qualifications	<ul style="list-style-type: none"> • Interest in chemistry and mathematics • Ability to follow detailed procedures • Interest in performing technical work
Related Credentials Offered	<ul style="list-style-type: none"> • Certified Petroleum Apprentice Level 1 • Certified Petroleum Journeyman Level 2 • Certified Safety Professional • Certified Petroleum Specialist Level 3 • Certified Petroleum Craftsman Level 4

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	No experience requirement for GIT certification.
Education Requirement	<p>Candidate for certification would need to submit one of the following to satisfy education requirement:</p> <ol style="list-style-type: none"> (1) Proof of graduation from an accredited institution of higher learning in the United States, having majored in geology, geophysics, geochemistry, or engineering geology; or (2) Proof of graduation from an accredited institution of higher learning in the United States. that does not offer a major in geology, geophysics, geochemistry, or engineering geology, having completed 30 semester hours or 45 quarter hours or an equivalent amount of geological education; or (3) Proof of graduation from a foreign college or university that World Education Services or other Board-approved professional evaluation service deems equivalent.
Examination Requirement	Candidate for certification must pass qualifying examinations to satisfy requirement.

State Board of Engineers, Land Surveyors, and Geologists
Professional Engineer

Experience Requirement	EIT Experience Required - Applicants who apply for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).
Education Requirement	<p>Bachelor's Degree - A candidate for licensure as a professional engineer shall submit proof of graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology).</p> <p>*The Board will accept applicants that have been approved to take the Fundamentals of Engineering examination with one of the following education qualifications:</p> <ul style="list-style-type: none"> • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	2 Examinations - Applicant must have achieved a passing score on the National Council of Examiners for Engineering and Surveying (NCEES) Principles and Practice of Engineering Examination (PE) and the NCEES Fundamentals of Engineering (FE) exam.
Profession definition	An individual licensed and registered by the state board to engage in the practice of engineering. Engineering is the application of mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems.

Coast Guard
Civil Engineer (55) [Commissioned Officer]

Job Duties	<ul style="list-style-type: none"> • Coast Guard Civil Engineers provide leadership and technical abilities to support combat operations through expertise in mobility, counter-mobility, and survivability operations. • Civil Engineers design and construct critical infrastructure such as base camps, roads, bridges, airfields, and ports. • As part of the United States Army Corps of Engineers, Civil Engineers provide vital public engineering to support our Nation's security, energize the economy, and reduce risks from disasters • Army Civil Engineers also manage the design, construction, maintenance and repair of facilities and infrastructure at Army installations worldwide.
Education/ Training	<ul style="list-style-type: none"> • Coast Guard Civil Engineers work with a Coast Guard assignment officer following selection. • Following commissioning (which occurs approximately 30 days prior to attending the Direct Commission Officer (DCO) course in New London, Connecticut) new officers will execute permanent change of station orders and report directly to their first unit for a brief period. • Civil Engineers then go temporary duty to the DCO course. The DCO course will be 5 weeks in duration. At DCO training, Civil Engineers receive initial indoctrination to the traditions and programs of the Service, and training on service-specific administration essentials needed for their success as a commissioned officer in the Coast Guard
Qualifications	<ul style="list-style-type: none"> • A STEM degree with a focus on civil engineering, environmental engineering, construction management, electrical engineering, mechanical engineering, or engineering management
Related Credentials Offered	<p>Principles and Practice of Engineering (PE) Exam:</p> <ul style="list-style-type: none"> ○ Civil ○ Control Systems ○ Industrial and Systems ○ Mechanical ○ Structural

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>A candidate for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).</p> <p>The Coast Guard does not have any minimum time period for servicemember's experience to perform the job.</p> <p>If candidate does not have EIT certificate, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum. Experience attained during time of service may count towards years of experience requirement.</p>
Education Requirement	<p>The servicemember holds a bachelor's degree with a focus in Engineering.</p> <p>Satisfies education requirement for licensure if degree program is accredited by ABET.</p> <p>If servicemember's degree is unaccredited, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum.</p>
Examination Requirement	<p>A candidate for licensure must first pass the FE examination to receive an EIT certificate.</p> <p>After that, candidates can only take the PE exam after obtaining the EIT certificate and accruing four or more years of progressive experience in engineering work performed after the issuance of the EIT certificate.</p> <p>The Coast Guard does not require servicemembers to pass the FE examination or hold a license to perform job in the military but does offer servicemembers the ability to sit for the PE examination during time of service.</p> <p>Candidate for licensure must demonstrate proof of passing both the FE & PE examinations to satisfy examination requirement for licensure.</p>

State Board of Engineers, Land Surveyors, and Geologists
Professional Engineer

Experience Requirement	EIT Experience Required - Applicants who apply for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).
Education Requirement	<p>Bachelor's Degree - A candidate for licensure as a professional engineer shall submit proof of graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology).</p> <p>*The Board will accept applicants that have been approved to take the Fundamentals of Engineering examination with one of the following education qualifications:</p> <ul style="list-style-type: none"> • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	2 Examinations - Applicant must have achieved a passing score on the National Council of Examiners for Engineering and Surveying (NCEES) Principles and Practice of Engineering Examination (PE) and the NCEES Fundamentals of Engineering (FE) exam.
Profession definition	An individual licensed and registered by the state board to engage in the practice of engineering. Engineering is the application of mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems.

Marines
Utilities Officer (1120) [Officer]

Job Duties	<ul style="list-style-type: none"> • Plan and direct operations and maintenance of water purification, storage, and distribution sites, hygiene and laundry services, tactical power generation and tactical electrical power distribution systems. • Coordinate and manage the installation, maintenance, and repair of Environmental Control Units, and refrigeration equipment, and the maintenance and repair of the electrical systems of engineer equipment. • Utilities Officers will plan, direct, and coordinate water quality assurance and water disposal systems. • When deployed in support of Humanitarian Assistance/Disaster Relief and Civil-Military Operations, these officers' additional duties may also include planning, directing, and coordinating the installation and repair of plumbing and indoor electrical systems as well as liaising with foreign military and government officials in utilities support matters concerning the local populace. • When deployed during combat operations, Utilities Officers will plan, direct, and coordinate utilities operations and distribution of equipment and personnel through each phase of operations.
Education/ Training	<ul style="list-style-type: none"> • Officers have completed a four-year college degree in engineering or a related field. • Officers complete a comprehensive training program covering responsibilities, military structure and etiquette, traditions, and leadership development. • Utilities Officers receive specialized training, both on-the-job and in the classroom, to oversee military engineering projects. <ul style="list-style-type: none"> ○ Job-specific training content may include Contract management; Public works (e.g., utilities); Administration; Military-specific construction topics (e.g., breaching structures)
Qualifications	<ul style="list-style-type: none"> • Ability to communicate effectively; • Interest in engineering principles and concepts; • Interest in solving problems; • Interest in work requiring accuracy and attention to detail
Related Credentials Offered	<ul style="list-style-type: none"> • Safety Trained Supervisor Construction (STSC) • Electrical Plans Examiner – E3 • Associate Safety Professional (ASP) • Automobile/Light Truck – Heating and Air Conditioning (A7) • Medium/Heavy Truck – Heating, Ventilation, and Air Conditioning Systems

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>A candidate for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).</p> <p>The Marines do not have any minimum requirements for servicemember's experience to perform the job, other than completing the specialized training programs.</p> <p>If candidate does not have EIT certificate, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum. Experience attained during time of service may count towards years of experience requirement.</p>
Education Requirement	<p>Officers are required to hold a four-year college degree in engineering or a related field to perform job in the Marines.</p> <p><u>If the degree is in engineering from an ABET accredited school</u>, then education requirement is satisfied for licensure.</p> <p>Otherwise, the servicemember must demonstrate eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.</p>
Examination Requirement	<p>A candidate for licensure must first pass the FE examination to receive an EIT certificate.</p> <p>After that, candidates can only take the PE exam after obtaining the EIT certificate and accruing four or more years of progressive experience in engineering work performed after the issuance of the EIT certificate.</p> <p>Candidate for licensure must demonstrate proof of passing both the FE & PE examinations to satisfy examination requirement for licensure.</p>

State Board of Engineers, Land Surveyors, and Geologists
Professional Engineer

Experience Requirement	EIT Experience Required - Applicants who apply for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).
Education Requirement	<p>Bachelor's Degree - A candidate for licensure as a professional engineer shall submit proof of graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology).</p> <p>*The Board will accept applicants that have been approved to take the Fundamentals of Engineering examination with one of the following education qualifications:</p> <ul style="list-style-type: none"> • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	2 Examinations - Applicant must have achieve a passing score on the National Council of Examiners for Engineering and Surveying (NCEES) Principles and Practice of Engineering Examination (PE) and the NCEES Fundamentals of Engineering (FE) exam.
Profession definition	An individual licensed and registered by the state board to engage in the practice of engineering. Engineering is the application of mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems.

Marines
Combat Engineer Officer (1302) [Officer]

Job Duties	<ul style="list-style-type: none"> • Determine requirements, establish plans, provide designs, and direct operations, maintenance, repair, alteration, addition, and construction of facilities and utility systems; • Propose, design, and facilitate construction projects; • Coordinate activities with local, state, federal, and host country agencies; • Negotiate with architecture-engineering firms; • Administer competitive bid and contract awards; • Ensure compliance with labor regulations; • Review designs and participate in special engineering investigations and projects; • Act as technical representative and consultant for operations and maintenance activities
Education/ Training	<ul style="list-style-type: none"> • Engineer officers typically have a college degree in engineering or related field. Like other officers, they complete a comprehensive training program covering responsibilities, military structure and etiquette, traditions, and leadership development. • In addition, engineer officers receive specialized training, both on-the-job and in the classroom, to oversee military engineering projects. <ul style="list-style-type: none"> ○ Job-specific training content may include Contract management; Public works; Administration; Military-specific construction topics
Qualifications	<ul style="list-style-type: none"> • Interest in engineering principles and concepts; • Interest in working with mathematical formulas
Related Credentials Offered	<ul style="list-style-type: none"> • Certified Professional Constructor • CompTIA Certified Technical Trainer • Construction Documents Technologist • Masonry Field Testing Technician • Associate Engineering Technologist

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>A candidate for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).</p> <p>The Marines do not have any minimum requirements for servicemember's experience to perform the job, other than completing the specialized training programs.</p> <p>If candidate does not have EIT certificate, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum. Experience attained during time of service may count towards years of experience requirement.</p>
Education Requirement	<p>Officers are required to hold a four-year college degree in engineering or a related field to perform job in the Marines.</p> <p><u>If the degree is in engineering from an ABET accredited school</u>, then education requirement is satisfied for licensure.</p> <p>Otherwise, the servicemember must demonstrate eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.</p>
Examination Requirement	<p>A candidate for licensure must first pass the FE examination to receive an EIT certificate.</p> <p>After that, candidates can only take the PE exam after obtaining the EIT certificate and accruing four or more years of progressive experience in engineering work performed after the issuance of the EIT certificate.</p> <p>Candidate for licensure must demonstrate proof of passing both the FE & PE examinations to satisfy examination requirement for licensure.</p>

State Board of Engineers, Land Surveyors, and Geologists
Engineer-in-Training (EIT)

Experience Requirement	No Experience Required - Applicant may submit proof of eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum. The experience must be of a grade and character sufficient to enable the candidate to independently learn through practice the principles of mathematics and science attained through formal education. Academic training in engineering subjects may be counted towards the experience requirement.
Education Requirement	<p>To qualify for the fundamentals of engineering examination, the candidate shall possess one of the following qualifications:</p> <ul style="list-style-type: none"> • Graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology). A student who has completed 2 years in an ABET-accredited undergraduate curriculum in the United States and has maintained current enrollment may sit for the fundamentals of engineering examination but will not be eligible for certification as an engineer-in-training until the student provides proof of graduation. • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	1 Examination - Applicant must achieve a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of engineering examination.
Profession definition	A candidate for licensure as a professional engineer, who has been granted a certificate as an engineer-in-training after successfully passing the prescribed written examination in fundamental engineering subjects.

Marines
Engineer Assistant (1361 GYSGT-PVT) [Enlisted]

Job Duties	<ul style="list-style-type: none"> • Record field data, prepare schematic sketches, and mark survey stations; • Perform astronomic observation, and measure azimuths and angles with angular measuring equipment; • Direct and perform civil engineering design, drafting, surveying, and contract surveillance to support military facility construction and maintenance programs; • Prepare computer aided design (CAD) drawings, building information modeling (BIM) solutions, construction contract specifications, and cost estimates; • Evaluate potential construction sites and perform field tests on soils, asphalt, and concrete; • Perform drafting duties; interpret rough engineering sketches to produce working drawings using CAD/BIM techniques; produce architectural, structural, civil, mechanical, and electrical drawings; • Conduct reconnaissance, site location, construction, and mapping surveys; • Utilize auto-levels, electronic total stations, resource, and survey grade global positioning system (GPS) equipment and related instruments to complete surveys;
Education/ Training	<ul style="list-style-type: none"> • All enlisted service members complete basic military training, which includes time spent in a classroom and in the field, and covers tactical and survival skills, physical training, military life and customs, and weapons training. • Surveying, mapping, and drafting technicians in the Military will gain skills through classroom study, simulated combat conditions, and on-the-job experience. <ul style="list-style-type: none"> ○ Job-specific training content includes Surveying and drafting techniques; Geospatial interpretation; Architectural and structural drawing; Methods of computing target locations; Artillery tactics and field combat strategy; Ammunition-handling techniques; Gun, missile, and rocket system operations; Aerial photo interpretation
Qualifications	<ul style="list-style-type: none"> • Ability to convert ideas into drawings; • Interest in maps and charts; • Interest in working with drafting equipment and computers; • Interest in working with surveying equipment
Related Credentials Offered	<ul style="list-style-type: none"> • Architectural Apprentice Drafter • Architectural Certified Drafter • Autodesk AutoCAD Certified User • Certified Associate in Project Management • Certified Survey Technician - Office Track Level II

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	No experience requirement to qualify for EIT certification.
Education Requirement	<p>A candidate for certification must submit proof of graduation from an ABET accredited undergraduate engineering curriculum to satisfy education requirement.</p> <p align="center">OR</p> <p>Demonstrate <u>eight years of progressive experience in engineering work and knowledge</u> in order to satisfy education requirement for certification.</p> <p>Servicemembers' completion of Marine coursework, progressive experience, military training, and certifications earned during the time of service may count towards years of experience requirement for EIT certificate.</p>
Examination Requirement	A candidate for EIT certification must pass the National Council of Examiners for Engineering and Surveying fundamentals of engineering examination to satisfy requirement.

State Board of Engineers, Land Surveyors, and Geologists
Land Surveyor-in-Training

Experience Requirement	Experience or Education Required - If the applicant is not a graduate from an undergraduate civil engineering curriculum in the United States accredited by the Accreditation Board for Engineering and Technology (ABET) including a minimum of 10 credit hours of instruction in surveying or graduation from an undergraduate 4-year surveying curriculum in the United States accredited by ABET or did not graduate from an associate's degree program in a surveying technology curriculum accredited by ABET applicant can submit proof of six years of progressive experience in surveying, and knowledge, skill and education equivalent to that attained through graduation from an approved land surveying or civil engineering curriculum. The experience must reflect diversification of field and office work, with no less than 25% of the experience in either area and be of a grade and character sufficient to enable the candidate to independently learn through practice the surveying skills and principles of mathematics attained through formal education.
Education Requirement	Associate's or bachelor's degree - An applicant for the surveyor-in-training certificate shall show satisfactory evidence of: <ul style="list-style-type: none"> • Graduation from an approved civil engineering curriculum of at least four years, including no less than ten credit hours instruction in surveying. A student who has completed 2 years of a 4-year surveying curriculum may sit for the fundamentals of surveying examination but will not be eligible for certification as a surveyor-in-training until applicant provides proof of graduation. • Six or more years of progressive experience in surveying and knowledge, skill and education deemed equivalent, in accordance with board regulation, to graduation from an approved curriculum in land surveying or civil engineering; or • An associate degree in an approved surveying technology curriculum
Examination Requirement	1 Examination - A candidate for certification as a surveyor-in-training shall achieve a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of surveying examination.
Profession definition	A candidate for licensure as a professional land surveyor who has been granted a certificate as a surveyor-in-training after successfully passing the prescribed written examination in fundamental land surveying subjects.

Marines
Geographic Intelligence Specialist (261 MSGT-PVT) [Enlisted]

Job Duties	<ul style="list-style-type: none"> • Collect, analyze, and process geophysical data and geographic information to aid in the production of geographic intelligence product; • Utilize global satellite communication networks to support geospatial intelligence; • Utilize survey and mapping instrumentation, such as theodolites, electronic and satellite positioning equipment, and microcomputer-based mapping equipment; • Operate imagery exploitation equipment including computer-assisted exploitation, geospatial analysis manipulation, and automated database systems and construct queries • Exploit and analyze multi-sensor imagery and geospatial data and products in conjunction with all-source intelligence information; • Extract geospatial data from remote sensed imagery, field reconnaissance, digital data, existing topographic products, and other collateral data sources; • Analyze still, motion, radar, infrared, spectral imagery, and geospatial data; • Detect and report on observed image activities that are of significant military, civilian, industrial, infrastructural, and environmental importance to decision makers and warfighters;
Education/ Training	<ul style="list-style-type: none"> • All enlisted service members complete basic military training, which includes time spent in a classroom and in the field, and covers tactical and survival skills, physical training, military life and customs, and weapons training. • Job training for geospatial imaging specialists consists of classroom and on-the-job instruction, including practice in using sophisticated imagery collection equipment. <ul style="list-style-type: none"> ○ Training content includes Imagery collection, interpretation, and exploitation techniques; Collecting, analyzing, and evaluating geospatial, geographic, and remote sensed data; Preparing maps, charts, and intelligence reports; Using computer systems and imagery exploitation software; Analyzing fixed/moving target indicators, geospatial data, and overhead/aerial images; Using geospatial imagery to aid in targeting process
Qualifications	<ul style="list-style-type: none"> • Interest in computers; • Interest in earth science; • Strong critical thinking skills
Related Credentials Offered	<ul style="list-style-type: none"> • Certified GIS/LIS Technologist • Certified Photogrammetric Technologist • Certified Remote Sensing Technologist • ESRI ArcGIS Desktop Associate • Certified Associate in Project Management

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>If candidate for certification is a graduate from an approved civil engineering curriculum or holds an associate degree in an approved surveying technology curriculum:</p> <p>Experience requirement is met.</p> <p>If candidate for certification does not hold a degree from an approved civil engineering curriculum or an associate degree in an approved surveying technology curriculum:</p> <p>Candidate must demonstrate completion of <u>six or more years of progressive experience in surveying and knowledge, skill, and education.</u></p> <p>Marine Geographic Intelligence Specialist job duties, advanced individual training, and credentials earned during time-of-service may count towards years of experience requirement.</p>
Education Requirement	<p>Candidate must demonstrate proof of an associate degree in an approved surveying technology curriculum.</p> <p>OR</p> <p>Candidate must demonstrate completion of <u>six or more years of progressive experience in surveying and knowledge, skill, and education.</u></p> <p>Army Geospatial Intelligence Imagery Analyst job duties, advanced individual training, and credentials earned during time-of-service may count towards years of experience requirement.</p>
Examination Requirement	<p>Candidate must receive a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of surveying examination to satisfy requirement for certification.</p>

State Board of Engineers, Land Surveyors, and Geologists
Professional Engineer

Experience Requirement	EIT Experience Required - Applicants who apply for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).
Education Requirement	<p>Bachelor's Degree - A candidate for licensure as a professional engineer shall submit proof of graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology).</p> <p>*The Board will accept applicants that have been approved to take the Fundamentals of Engineering examination with one of the following education qualifications:</p> <ul style="list-style-type: none"> • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	2 Examinations - Applicant must have achieve a passing score on the National Council of Examiners for Engineering and Surveying (NCEES) Principles and Practice of Engineering Examination (PE) and the NCEES Fundamentals of Engineering (FE) exam.
Profession definition	An individual licensed and registered by the state board to engage in the practice of engineering. Engineering is the application of mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems.

Navy
SC - Civil Engineer Corps (510) [Officer]

Job Duties	<ul style="list-style-type: none"> • Oversee construction of everything from runways to docks to buildings of all kinds; • Supervise and manage utilities and other critical services; • Manage a variety of skilled construction workers; • Arrange budgets and schedules; • Approve completed work • Civil Engineer Corps Officers receive advanced training in civil engineering areas including: <ul style="list-style-type: none"> ○ architecture, construction engineering, environmental engineering, water resources engineering, geotechnical engineering, hydraulic engineering, land surveying, structural engineering, transportation engineering and community planning.
Education/ Training	<ul style="list-style-type: none"> • Those entering the Civil Engineer Corps must first attend Officer Candidate School (OCS) in Newport, R.I., followed by Civil Engineer Corps Officer School • Skills learned: <ul style="list-style-type: none"> ○ Management, administration, contract management, public works, and specialized military roles such as Construction Battalions.
Qualifications	<ul style="list-style-type: none"> • Must have a four-year degree from an accredited college or university, preferably in the field of civil, mechanical, or electrical engineering.
Related Credentials Offered	<ul style="list-style-type: none"> • Certified Construction Contract Administrator • Certified Construction Manager • Certified Professional Constructor • Safety Trained Supervisor Construction • Board Certified Environmental Engineer - Air Pollution Control

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	<p>A candidate for licensure as a Professional Engineer must have been certified as an engineer-in-training (EIT) and have four years of progressive engineering experience (after the issue date of the EIT certificate).</p> <p>The Navy does not have any minimum requirements for servicemember's experience to perform the job, other than completing the advanced training program and officer school.</p> <p>If candidate does not have EIT certificate, they can still apply for licensure if they have eight or more years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from approved engineering curriculum. Experience attained during time of service may count towards years of experience requirement.</p>
Education Requirement	<p>Officers are required to hold a four-year degree from an accredited college or university, preferably in the field of civil, mechanical, or electrical engineering to perform job in the Marines.</p> <p><u>If the degree is in engineering from an ABET accredited school</u>, then education requirement is satisfied for licensure.</p> <p>Otherwise, the servicemember must demonstrate eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.</p>
Examination Requirement	<p>A candidate for licensure must first pass the FE examination to receive an EIT certificate.</p> <p>After that, candidates can only take the PE exam after obtaining the EIT certificate and accruing four or more years of progressive experience in engineering work performed after the issuance of the EIT certificate.</p> <p>Candidate must demonstrate proof of passing both the FE & PE examinations to satisfy examination requirement for licensure.</p>

State Board of Engineers, Land Surveyors, and Geologists
Engineer-in-Training (EIT)

Experience Requirement	No Experience Required - Applicant may submit proof of eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum. The experience must be of a grade and character sufficient to enable the candidate to independently learn through practice the principles of mathematics and science attained through formal education. Academic training in engineering subjects may be counted towards the experience requirement.
Education Requirement	<p>To qualify for the fundamentals of engineering examination, the candidate shall possess one of the following qualifications:</p> <ul style="list-style-type: none"> • Graduation from an undergraduate engineering curriculum in the United States accredited by ABET (Accreditation Board for Engineering and Technology). A student who has completed 2 years in an ABET-accredited undergraduate curriculum in the United States and has maintained current enrollment may sit for the fundamentals of engineering examination but will not be eligible for certification as an engineer-in-training until the student provides proof of graduation. • Graduation from an ABET-accredited graduate-level engineering curriculum in the United States or from a foreign ABET-accredited undergraduate or graduate engineering curriculum. • Graduation from both a graduate-level engineering curriculum at a college or university in the United States and from an undergraduate engineering curriculum at a college or university in the United States that was substantially equivalent to an ABET-accredited curriculum. • Graduation from a foreign undergraduate or graduate, or both, engineering curriculum that was substantially equivalent to an ABET-accredited curriculum. • Eight years of progressive experience in engineering work and knowledge, skill and education approximating that attained through graduation from an approved engineering curriculum.
Examination Requirement	1 Examination - Applicant must achieve a passing score on the National Council of Examiners for Engineering and Surveying fundamentals of engineering examination.
Profession definition	A candidate for licensure as a professional engineer, who has been granted a certificate as an engineer-in-training after successfully passing the prescribed written examination in fundamental engineering subjects.

Navy
Engineer Aid (H140) [Enlisted]

Job Duties	<ul style="list-style-type: none"> • Conduct surveys • Prepare hydrographic, topographic and triangulation drawings and maps and prepare architectural drawings and sketches • Compute the volume of bulk materials like concrete from drawings and specifications • Operate and maintain various types of precision surveying and laboratory test instruments and equipment • Design grading and drainage systems • Conduct tests on soil and asphalt and oversee and conduct quality control inspections for Navy construction projects • May work in a variety of conditions, independently or as members of a large team.
Education/ Training	<ul style="list-style-type: none"> • After basic training at Recruit Training Command in Great Lakes Illinois, Sailors in this job spend 107 calendar days in A-school (what the Navy calls its technical school) at Fort Leonard Wood in Missouri. .
Qualifications	<ul style="list-style-type: none"> • A combined score of 210 on the arithmetic (AR) and mathematical knowledge (MK) segments of the Armed Services Vocational Aptitude Battery (ASVAB) tests.
Related Credentials Offered	<ul style="list-style-type: none"> • Aggregate Testing Technician - Level 1 • Aggregate/Soils Base Testing Technician • Architectural Apprentice Drafter • Architectural Certified Drafter • Certified Construction Manager

Licensure Requirement – Military Experience Equivalency Notes

Experience Requirement	No experience requirement to qualify for EIT certification.
Education Requirement	<p>Candidate must submit proof of graduation from an ABET accredited undergraduate engineering curriculum to satisfy education requirement for certification.</p> <p>OR</p> <p>Demonstrate <u>eight years of progressive experience in engineering work and knowledge</u> in order to satisfy education requirement for certification.</p> <p>Servicemembers' completion of Marine coursework, progressive experience, military training, and certifications earned during the time of service may count towards years of experience requirement for EIT certificate.</p>
Examination Requirement	Candidate must pass the National Council of Examiners for Engineering and Surveying fundamentals of engineering examination to satisfy requirement for EIT certification.