



**US Army Corps
of Engineers®**

**NOW HIRING!
JOIN OUR TEAM**



Marine Design Center



Design Boats!

Vessel Construction!

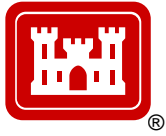
MECHANICAL ENGINEERS

NAVAL ARCHITECTS

**3.0+ GPA starts
At GS-7!**

**Awesome
Team!**

**Great
Benefits!**



JOB OPENINGS FOR ENGINEERS



U.S. ARMY CORPS OF ENGINEERS, MARINE DESIGN CENTER PHILADELPHIA, PA

These positions are being filled under Direct Hire Authority for Recent Graduates and Post-Secondary Students as recent graduates. This announcement is targeting those that will graduate by 1 June 2019 or recent graduates who meet the following criteria:

Recent Graduate: a person who was awarded a degree by an institution of higher education not more than two years before the date of the appointment of the applicant. Exception: For a person who has completed a period of obligated service in a uniformed service of more than four years, the degree may be awarded by an institution of higher education not more than four years before the date of the appointment of the applicant.

This announcement is open from February 11, 2019 until March 4, 2019.

Job Fair Details:

The Marine Design Center will be in attendance at the following events:

- Job Fair at Stevens Institute of Technology on Wednesday, February 13, 2019
- School of Engineering at the University of New Orleans on Tuesday, February 19, 2019
- US Army Corps of Engineers, Philadelphia District Open House on Friday, February 22, 2019

Note: While attendance at one of the events listed above is encouraged, it is not required in order to submit an application for these positions.

Summary:

The US Army Corps of Engineers, Marine Design Center is currently hiring Mechanical Engineers and Naval Architects. The positions are to be filled as Recent Graduate Mechanical Engineers (GS-0830) and Recent Graduate Naval Architects (GS-0871).

Position Title: Mechanical Engineer (GS-0830) Naval Architect (GS-0871)

Salary Range:

The position(s) will be filled at the GS-07 grade (\$46,609 per year). The career path for the position(s) will include eligibility for promotion to the GS-09, GS-11, and GS-12 pay grades provided all position specific requirements are satisfied (satisfactory performance and time-in-grade). The full performance level for the position(s) is GS-12 (\$79,239-\$103,011).



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About the Position(s):

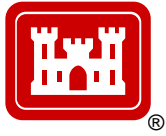
The position(s) being offered are located within the US Army Corps of Engineers, Marine Design Center, Design Branch, located in Philadelphia, PA. The Marine Design Center Office is located in the Wanamaker Building, adjacent to City Hall in Center City Philadelphia. The Marine Design Center was established in 1908 as a center of expertise and experience for naval architecture and marine engineering. The Center provides total project management including planning, engineering and shipbuilding contract management in worldwide support of Corps, Army and national water resource projects. The Center services the entire Corps of Engineers by preparing preliminary workboat, barge, and ship designs, preparing contract designs, performing marine engineering and naval architectural consulting, performing stability analysis for vessels, load handling analysis for floating cranes, specification writing for both new construction and major vessel upgrades, and preparation of technical contract sections. In addition, the center manages acquisitions of floating plant to include quality assurance at shipyards, contract compliance, physical testing, and direct support to Contracting Officers. Vessel types include hopper dredges, dustpan dredges, floating cranes, crane barges, survey boats, towboats, specialty barges, and various types of workboats. For additional information, see our website at <https://www.nap.usace.army.mil/Missions/Marine-Design-Center/>.

Mechanical Engineer Duties:

As a mechanical engineer at the Marine Design Center, you will be assigned responsibility for design of mechanical equipment, systems, and features for floating plant such as hopper dredges, pipeline dredges, dustpan dredges, tugboats, towboats, derrick boats, and crane barges. Projects include designs for new construction as well as repowering or major modifications to existing vessels. Your responsibilities will include, but not limited to, the following:

1. Assisting in the design and construction of mechanical engineering components, equipment or systems using established criteria or specifications.
2. Preparing drawings, specifications, and supporting documents for marine mechanical engineering systems and projects.
3. Preparing calculations to support the detailed design of marine mechanical engineering systems onboard marine vessels to include piping system design and pump selection, heating, ventilation, and air conditioning systems, compressed air, and hydraulic systems.
4. Preparing detailed cost estimates for use in obtaining project funding, in bid evaluation, and in contract modifications.
5. Reviewing marine mechanical engineering designs prepared by architect-engineer firms and shipyards to evaluate the adequacy and practicability of the equipment or system design as well as their suitability and compliance with the intended function.
6. Consulting with shipyard contractor personnel to resolve unforeseen technical problems during construction.
7. Coordinating, monitoring, and reporting progress of engineering and design for the project assigned.

A considerable amount of physical activity is required, including walking, climbing, and bending during repeated shipyard visits. Work requires frequent and recurring shipyard visits which expose the employee to typical outdoor industrial environments.



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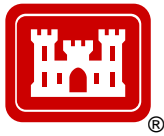
Naval Architect Duties:

As a naval architect at the Marine Design Center, you will perform varied naval architecture duties and be assigned responsibility for technical and design aspects of floating plant such as hopper dredges, pipeline dredges, dustpan dredges, tugboats, towboats, derrick boats, and crane barges. Projects include designs for new construction as well as repowering or major modifications to existing vessels. Your responsibilities will include, but not limited to, the following:

MAJOR DUTIES

1. Assisting in the design and development of hull forms and vessel arrangements.
2. Performing studies, developing calculations and assisting with preparing design plans for vessel structure including hull scantlings, superstructure, deckhouse and foundations. Calculations and design will be developed using established criteria, regulatory requirements and industry standards.
3. Performing basic design of ships involving various combinations of the following areas: Hull form, displacement, stability, general arrangements weight, trim, speed, power, and endurance.
4. Preparing weight estimates and performing calculations to determine the stability of new or altered vessels.
5. Developing tank capacity requirements and plans for fuel oil, fresh water, lube oil and ballast tanks.
6. Reviewing naval architecture/marine engineering designs prepared by architect-engineer firms and shipyards to evaluate the adequacy and practicability of the layout, equipment or system design as well as their suitability and compliance with the intended function, contract plans and specifications.
7. Consulting with shipyard contractor personnel to resolve unforeseen technical problems during construction.
8. Coordinating, monitoring, and reporting progress of engineering and design for the project assigned.

A considerable amount of physical activity is required, including walking, climbing, and bending during repeated shipyard visits. Work requires frequent and recurring shipyard visits which expose the employee to typical outdoor industrial environments.



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How to Apply:

Email the following documents to timothy.j.keyser@usace.army.mil and Jeremy.d.coatsworth@usace.army.mil

- a. A copy of your most current resume which clearly identifies beginning and ending dates of employment, experience, and education. Include work experiences and skills exhibited, number of hours per week worked at each job, projected graduation date, and associated references.
- b. An unofficial copy of your college transcript which includes the name of your educational institute, your identifying information, the degree conferred (if already graduated), and the date that the degree conferred.

These documents must be emailed no later than 11:59 pm on 4 March 2019.

Qualifications:

To Qualify: Basic Requirement for Mechanical Engineer GS-830-07 or Naval Architect GS-0871-07:

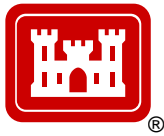
A. Degree: Bachelor's degree (or higher degree) in engineering. To be acceptable, the program must: (1) lead to a bachelor's degree (or higher degree) in a school of engineering with at least one program accredited by the Accreditation Board for Engineering and Technology (ABET); OR (2) include differential and integral calculus and courses (more advanced than first-year physics and chemistry) in five of the following seven areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

OR

B. Combination of Education and Experience: College-level education, training, and/or technical experience that furnished (1) a thorough knowledge of the physical and mathematical sciences underlying engineering, and (2) a good understanding, both theoretical and practical, of the engineering sciences and techniques and their applications to one of the branches of engineering. The adequacy of such background must be demonstrated by one of the following:

1. Professional registration or licensure - Current registration as an Engineer Intern (EI), Engineer in Training (EIT), or licensure as a Professional Engineer (PE) by any State, the District of Columbia, Guam, or Puerto Rico. Absent other means of qualifying under this standard, those applicants who achieved such registration by means other than written test (e.g., State grandfather or eminence provisions) are eligible only for positions that are within or closely related to the specialty field of their registration. For example, an applicant who attains registration through a State Board's eminence provision as a manufacturing engineer typically would be rated eligible only for manufacturing engineering positions.

2. Written Test - Evidence of having successfully passed the Fundamentals of Engineering (FE) examination, or any other written test required for professional registration, by an engineering licensure board in the various States, the District of Columbia, Guam, or Puerto Rico.



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3. Specified academic courses - Successful completion of at least 60 semester hours of courses in the physical, mathematical, and engineering sciences and that included the courses specified in A above. The courses must be fully acceptable toward meeting the requirements of an engineering program.

4. Related curriculum - Successful completion of a curriculum leading to a bachelor's degree in an appropriate scientific field, e.g., engineering technology, physics, chemistry, architecture, computer science, mathematics, hydrology, or geology, may be accepted in lieu of a degree in engineering, provided the applicant has had at least 1 year of professional engineering experience acquired under professional engineering supervision and guidance. Ordinarily there should be either an established plan of intensive training to develop professional engineering competence, or several years of prior professional engineering-type experience, e.g., in interdisciplinary positions.

In addition to meeting the basic requirement above, to qualify for this position at the GS-7 you must also meet the qualification requirements listed below:

Specialized Experience:

One year of specialized experience which includes assisting in the design and construction of mechanical engineering devices, equipment or systems using established criteria or specifications; or, monitoring the testing of mechanical engineering devices, systems or their equipment or components and reviewing the test results to ensure proper functionality; or, assisting in the inspection and evaluation of mechanical engineering devices, equipment or systems using established criteria. This definition of specialized experience is typical of work performed at the second lower grade/level position in the federal service (GS-05).

OR

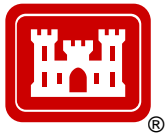
Education: One full year of graduate level education in a field which demonstrates the knowledge, skills, and abilities necessary to do the work of the position, such as Mechanical Engineering/Naval Architecture.

OR

Superior Academic Achievement. In order to be creditable under this provision, Superior Academic Achievement must have been gained in a curriculum that is qualifying for the position to be filled, such as that identified in Education above. Superior Academic Achievement is based on:

(1) Class Standing - Applicants must be in the upper third of the graduating class in the college, university, or major subdivision, such as the College of Liberal Arts or the School of Business Administration, based on completed courses; OR

(2) Grade-Point Average (G.P.A.) - Applicants must have a grade-point average of either (a) 3.0 or higher out of a possible 4.0 ("B" or better) as recorded on your official transcript, or as computed based on 4 years of education, or as computed based on courses completed during the final 2 years of the curriculum; or (b) 3.5 or higher out of a possible 4.0 ("B+" or better) based on the average of the required courses completed in the major field or the required courses in the major field completed during the final 2 years of the curriculum.; (Grade-point averages are to be rounded to one decimal place. For example, 2.95 will round to 3.0 and 2.94 will round to 2.9). OR



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(3) Honor Society Membership - Applicants may be considered eligible based on membership in one of the approved national scholastic honor societies listed by the Association of College Honor Societies (<https://www.achsnatl.org/>).

OR

Combination of Education and Experience: A combination of education and experience may be used to qualify for this position as long as the computed percentage of the requirements is at least 100%. To compute the percentage of the requirements, divide your total months of experience by 12. Then divide the total number of completed graduate semester hours (or equivalent) by 18. Add the two percentages.

Additional requirements:

Defense Acquisition Workforce: This position requires possession of, or the ability to acquire, a Defense Acquisition Workforce Improvement Act (DAWIA) Level I Facilities Engineering certification. The certification shall be completed within 24 months after initial date of employment.

Driver's license: Must obtain and maintain a valid state driver's license.

Travel: Business travel up to 33% of the time.

Requirements for positions upon Job Offer:

Selective service registration

Proof of US Citizenship

Direct Deposit of Pay

Selectees will be required to serve a 2 year probationary period.

Reasonable Accommodation:

Reasonable Accommodation is available to qualified employees with disabilities. For further information visit: <https://www.opm.gov/policy-data-oversight/disability-employment/reasonable-accommodations/>