GSE – Gas Turbine Systems Technician (Electrical)

Gas Turbine Systems Technician (Electrical) operate, repair and perform organizational and intermediate maintenance on electrical components of gas turbine engines, main propulsion machinery, auxiliary equipment, propulsion control systems, and assigned electrical and electronic circuitry up to the printed circuit and alarm warning circuitry.

What They Do

- operating electric plant main and propulsion control equipment;
- locating circuit failures and replacing parts;
- measuring current, voltage and resistance;
- testing for shorts, grounds and continuity;
- testing protective circuitry;
- testing, servicing and replacing batteries;
- performing preventive maintenance on digital data equipment and control and monitoring circuits;
- measuring insulation resistance;
- repairing electrical/electronic cables, wiring and connectors;
- maintaining alarm, indicating and warning systems;
- maintaining and repairing gas turbine engines and auxiliary equipment;
- working with blueprints, schematics and charts;
- performing administrative procedures related to gas turbine propulsion system operation and maintenance;
- performing work area inspections;
- operating standard test equipment;
- stopping engines and checking for proper performance;
- replacing and adjusting operating tolerance of contacts, micro switches, relay switches, pressure switches and temperature switches.

Working Environment

Gas turbine systems technicians usually work in engine rooms or shops that may be hot and noisy aboard many types of modern ships. At shore they may work at major repair or training facilities. Work is physical and analytical (trouble-shooting) for electronic components.

Opportunities

Opportunities for placement in this rating are excellent. Approximately 1,200 men and women work in this rating.

Qualifications and Interests

Personnel in this rating must have mechanical ability, manual dexterity and normal color perception. They should also have experience working with machines, in electronics/electrical fields and have had some courses in physics.

Earn College Credit

The American Council on Education recommends that semester hour credits be awarded in the vocational certificate and lower-division bachelor's/associate's degree categories for courses taken in this rating on office machines and general clerical procedures. To see the college credits available via a **Joint Service Transcript** for this rating:

GSE

https://www.cool.navy.mil/usn/jst/gse_jst.pdf

Career Path After Recruit Training

Enlistees are taught the fundamentals of this rating through on-the-job training or formal Navy schooling. Advanced technical and operational training is available in this rating during later stages of career development.

School	Present Location	Approximate Training Time	Subjects	Training Methods
Basic Engineering Common Core	Great Lakes, Ill.	10 Weeks	Introduction to technical documentation, basic mechanical theory, safety precautions and programs, alignment and operation of piping systems and equipment, hand tools, precision instruments, lubricants, bearings, couplings, gears, valves, pumps and the Maintenance Material Management System (3M)	Self paced Group instruction and practical application
GSE Strand Technical School	Great Lakes, Ill	11 weeks	Introduction to technical documentation, basic watch standing procedures, alignment and operation of piping systems and equipment, hand tools, precision instruments, lubricants and lubricating systems, bearings, couplings, gears, valves, the Maintenance Material Management System (3M), gas turbine engine theory, propulsion theory, digital logic control system, electromechanical and electro hydraulic servo devices, electrical power and generative distribution CPR, electrical math, basic schematics, AC/DC circuits, solid state characteristics, logic systems	Self paced Group instruction and practical application

During a 20-year period in the Navy. GSE spend about 65 percent of their time assigned to fleet units and 35 percent to shore stations.

GSE – Gas Turbine Systems Technician (Electrical)

Earn Department of Labor (DOL) Nationally Recognized Apprenticeships

USMAP

The United Services Military Apprenticeship Program (USMAP) is a formal military training program that provides active duty and Full Time Support (FTS) Service members the opportunity to improve their job skills and to complete their civilian apprenticeship requirements while they are on active duty. The U.S. Department of Labor (DOL) provides the nationally recognized "Certificate of Completion" upon program completion. Visit United Services Military Apprenticeship Program (USMAP) for LS apprenticeships.

GSE
https://usmap.netc.navy.mil/usmapss/static/navyRates.htm

Earn Industry Recognized Credentials

Navy Credentialing Opportunities On-Line (Navy COOL) Navy COOL catalogs and defines comprehensive information on occupational credentials - including certifications, licenses, and apprenticeships - correlating with every Navy rating and some collateral duties. It provides "how to" instructions for pursuing these credentials, links to credentialing organizations, and cross-references to programs that help Sailors pay for credentialing fees. Shortly following the initial rating technical training (Class "A" technical school), Sailors may be able to take advantage of earning civilian/industry certifications & licenses (credentials), funded through Navy COOL. Visit the Navy COOL website to view these opportunities. See the link below.

GSE
https://www.cool.navy.mil/usn/enlisted/gse.htm

Manage a Navy Career with Navy LaDR (Learning and Development Roadmap)

To see the Navy LaDR (Learning and Development Roadmap) for this rating:

GSE
https://www.cool.navy.mil/usn/LaDR/gse_e1_e9.pdf

Earn Skill Sets Towards Civilian Related Occupations

The skill sets for this rating crosswalk to civilian related occupations listed by the U.S. Department of Labor. To see Related Civilian, Federal, and Military Sealift Command Occupations for this rating, see the link below.

GSE
https://www.cool.navy.mil/usn/enlisted/gse.htm

Revised: 1/17