



GSEs 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**

The duties performed by GSEs include:

- 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.

**Credit Recommendations**

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 technical mathematics, applied physics, gas turbines, basic AC/DC theory and blueprint reading.

**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.

**Career Path After Recruit Training**

Enlistees are taught the fundamentals of this rating through formal Navy schooling. Advanced technical and operational training is available in this rating during later stages of career development. Temporary assignments to general duty, sometimes aboard ship, may be required while awaiting advanced training assignment.

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

**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 mentally demanding. GSEs spend about 20 percent of their time at sea and 80 percent at shore stations.

**Navy LaDR (Learning and Development Roadmap)**



To see the Navy LaDR (Learning and Development Roadmap) for this rating, visit the following link: [https://www.cool.navy.mil/usn/LaDR/gse\\_e1\\_e9.pdf](https://www.cool.navy.mil/usn/LaDR/gse_e1_e9.pdf)

**Opportunities**

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

**Civilian, Federal, and Military Sealift Command Related Occupations**

To see Related Civilian, Federal, and Military Sealift Command Occupations for this rating: **GSE**  
<https://www.cool.navy.mil/usn/enlisted/gse.htm>

**College Credits for this Rating**

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

**Additional Information**

For more information on opportunities available for this rating, please visit Navy Credentialing Opportunities On-Line (COOL)

**GSE**

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

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Since Navy programs and courses are revised at times, the information contained on this rating card is subject to change.

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