

F.S.I. Tranquility Base Career Bingo— Career Descriptions



TEACHER RESOURCE

AEROSPACE ENGINEERING AND OPERATIONS TECHNICIAN

Description

Operate, install, and maintain computer/communications systems, simulators, and other data instruments to launch, track, and evaluate air and space vehicles. May record and interpret test data.

Tasks

Exchange cooling system components in various vehicles.

Meet with engineering personnel regarding details of test procedures and results.

Test aircraft under simulated operational conditions. Perform readiness tests and pre- and postoperational checkouts to establish design features.

Operate computer systems and devices.

Construct and install parts for test equipment, using hand tools, power tools, and test instruments.

Construct and maintain test facilities for aircraft parts and systems.

ATMOSPHERIC AND SPACE SCIENTIST

Description

Investigate atmospheric phenomena. Interpret data gathered by stations, satellites, and radar. Prepare reports and forecasts for public and other uses.

Tasks

Broadcast weather conditions, forecasts, and severe weather warnings to the public using television, radio, and the Internet.

Study and interpret data using computer models.

Prepare forecasts and briefings to meet the needs of industry, business, government, and other groups.

CALIBRATION AND INSTRUMENTATION TECHNICIAN

Description

Develop, test, calibrate, operate, and repair many types of instruments. Instruments include mechanical, electromechanical, and electrohydraulic measuring and recording instruments.

Tasks

Use test equipment to change the performance and operation of instruments.

Sketch plans for developing instruments and related equipment.

Disassemble and reassemble instruments and equipment, using hand tools.

Inspect instruments and equipment for defects.

Select sensing, telemetering, and recording instrumentation and circuitry.

COMPUTER PROGRAMMER

Description

Convert statements and procedures to flow charts for coding into computer language.

F.S.I. Tranquility Base Career Bingo—Career Descriptions

Develop and write computer programs. May program web sites.

Tasks

Correct errors by making appropriate computer changes.

Conduct trial runs of programs and software applications.

Compile and write documentation of program development.

Write, update, and maintain computer programs or software packages to handle specific jobs, such as tracking inventory, storing or retrieving data, or controlling other equipment.

Perform revision and repair of existing programs to increase operating efficiency.

Write, analyze, and review programs, using workflow chart and diagram.

COMPUTER SOFTWARE ENGINEER, APPLICATION

Description

Develop, create, and modify general computer applications software or programs. Analyze user needs and develop software solutions. May analyze and design databases.

Tasks

Obtain and evaluate information on factors such as formats required, costs, and security needs.

Change existing software to correct errors.

Design and develop software systems, using scientific analysis and mathematical models.

Communicate with systems analysts, engineers, and programmers to design systems.

Analyze user needs and software requirements.

COMPUTER SUPPORT SPECIALIST

Description

Provide technical assistance to computer users. Answer questions or resolve computer problems for customers in person, by telephone, or from remote location. May provide help with computer hardware and software.

Tasks

Answer users' questions about computer software and hardware operation.

Install and perform minor repairs to hardware, software, and equipment.

Oversee the daily performance of computer systems.

Set up equipment for use, performing proper installation of cable, operating systems, and appropriate software.

Read technical manuals and conduct computer tests to solve problems and to provide technical assistance and support.

ELECTRICAL DRAFTER

Description

Develop instructions for installation of voltage transformers, overhead or underground cables, and related electrical equipment.

Tasks

Explain drawings to production or construction teams and provide adjustments as necessary.

F.S.I. Tranquility Base Career Bingo—Career Descriptions

Study work order requests to determine type of service, such as lighting or power, demanded by installation.

Draw master electrical sketches to scale.

Draft working drawings, wiring diagrams, wiring connection specifications of underground cables as required for instructions to installation crew.

ELECTRICAL ENGINEERING TECHNICIAN

Description

Apply electrical theory and related knowledge to test electrical machinery and control equipment. Usually work under direction of engineering staff.

Tasks

Draw or modify diagrams and write engineering specifications.

Conduct inspections for quality control programs, reporting findings and recommendations.

Set up and operate test equipment to check performance of parts, assemblies, or systems.

Modify electrical parts, assemblies, and systems.

Build, maintain, troubleshoot and repair electrical instruments or testing equipment.

Assemble electronic systems according to engineering data and knowledge of electrical principles.

EMERGENCY MEDICAL TECHNICIAN

Description

Assess injuries, administer emergency medical care, and rescue trapped individuals.

Transport injured or sick persons to medical facilities.

Tasks

Administer first aid treatment and life support care to sick or injured persons.

Operate equipment such as EKGs, defibrillators, and resuscitators in life support environments.

Determine extent of illness or injury and establish medical procedures.

Observe, record, and report to physician the patient's condition or injury and the treatment provided.

Perform emergency treatment procedures, such as stomach suction, airway management, and heart monitoring, during ambulance ride.

Administer drugs orally or by injection.

Comfort and reassure patients.

FIRE INVESTIGATOR

Description

Conduct investigations to determine causes of fires and explosions.

Tasks

Test sites and materials to gather facts about burn patterns and flashpoints of materials.

Dust evidence of fire scenes for fingerprints.

Subpoena and interview witnesses, property owners, and building occupants to obtain information and sworn testimony.

Prepare and maintain reports of investigation results and records of convicted arsonists and arson suspects.

F.S.I. Tranquility Base Career Bingo—Career Descriptions

Photograph damage and evidence related to causes of fires or explosions.

Examine fire sites and collect evidence for determining the cause of a fire.

FIRE PREVENTION AND PROTECTION ENGINEER

Description

Research causes of fires, determine fire protection methods, and design materials or equipment to assist organizations in safeguarding against fire, explosion, and related hazards.

Tasks

Conduct research on fire retardants and fire safety of materials to determine methods of fire prevention.

Evaluate fire departments, laws, and regulations affecting fire prevention or fire safety.

Design fire detection equipment, alarm system, and fire extinguishing devices and systems.

Organize and train personnel to carry out fire protection programs.

Study buildings to evaluate fire prevention factors, resistance of construction, contents, water supply and delivery, and exits.

MATERIALS ENGINEER

Description

Evaluate materials and develop machinery and processes to manufacture materials. Develop new uses for known materials. Includes those working in one type of material, such as graphite, metal and metal alloys, ceramics and glass, and plastics.

Tasks

Solve problems in a number of engineering fields, such as mechanical, chemical, electrical, civil, nuclear, and aerospace.

Review new product plans and make recommendations for selection based on design factors, such as strength, weight, heat resistance, and cost.

Plan and implement laboratory operations for developing material and procedures that meet cost, product, and performance standards.

Monitor material performance and deterioration.

Determine methods for making and joining materials.

Conduct tests on raw materials for quality measurements.

MATHEMATICIAN

Description

Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve problems in various fields by mathematical methods.

Tasks

Apply mathematical theories and techniques to the solution of practical problems in business, engineering, or the sciences.

Address the relationships of quantities, magnitudes, and forms through the use of numbers and symbols.

Perform computations and apply methods of numerical analysis to data.

F.S.I. Tranquility Base Career Bingo—Career Descriptions

Conduct research to extend mathematical knowledge in traditional areas, such as algebra, geometry, probability, and logic.

MUNICIPAL FIREFIGHTER

Description

Control and extinguish fires, protect life and property, and conduct rescue efforts.

Tasks

Administer first aid to injured persons.

Rescue victims from burning buildings.

Drive and operate firefighting vehicles and equipment.

Take action to contain hazardous chemicals that might catch fire, leak, or spill.

OCCUPATIONAL HEALTH AND SAFETY SPECIALIST

Description

Review and analyze work environments and design programs to control and prevent disease or injury caused by chemical, physical, and biological factors.

Tasks

Prepare equipment used to collect and analyze samples.

Review doctors' reports and conduct worker studies to determine if diseases or illnesses are job related.

Participate in educational meetings to instruct employees about occupational health and prevention of accidents.

Collect samples of dust, gases, vapors, and other potentially toxic materials for analysis.

OCCUPATIONAL HEALTH AND SAFETY TECHNICIAN

Description

Review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector.

Tasks

Prepare and calibrate equipment used to collect and analyze samples.

Collect samples of dust, gases, vapors, and other potentially toxic materials for analysis.

Prepare reports including observations, analysis of contaminants, and recommendation for control and correction of hazards.

Review physicians' reports and conduct worker studies to determine if diseases or illnesses are job related.