Position Descriptions

Aerospace

Do you have a Bachelor of Science in Aerospace Engineering?

If so, you may be eligible for a career in one of the following technical disciplines.

**Aeromechanics / Flight Control / Flight Qualities Engineer**
Predict, analyze, and verify air vehicle flight dynamics including aircraft aerodynamics, performance, flight stability and controllability, flying qualities, and the systems that control flight.

**Air Vehicles Design & Analysis Engineer**
Capability to accomplish integrated conceptual air vehicle synthesis and trade studies of existing or planned aircraft and cruise missile systems to support the definition of systems requirements, technology sensitivities or contractor evaluations.

**Air Vehicles Subsystems Engineer**
Air vehicle subsystems including aerial refueling systems, fuel systems, environmental control and thermal management systems, engine installation, fire prevention and protection, landing gear/tires/brakes, auxiliary power systems and hydraulic systems.

**Armament Integration Engineer**
All aspects of armament or weapons integration onto a fighter or bomber with the final product of "weapons on target." This includes safety, functional performance, mechanical, electrical and human interfaces, aerodynamic performance and aircraft/weapons compatibility during carriage and launch.

**Crew / Human Systems Engineer**
Development, integration and functional performance of crew systems including crew station, escape systems, transparencies, human factors, oxygen systems, parachute systems, personal equipment and life support systems.

**Defensive Systems / Reconnaissance Engineer**
Threat analysis, electronic combat modeling and simulation and electronic combat systems, including application of radio frequency, electro-optic and infrared technologies to threat/missile warning, reconnaissance and countermeasures systems.

**Low Observables Engineer**
Airborne signature reduction. This includes signature reduction techniques for radar cross section, infrared, visual acoustic, engine suppression and associated subsytems

**Modeling & Simulation Engineer**
The application of modeling and simulation throughout a weapon's system entire life cycle used to develop data and information for managerial or technical decision making. Includes use of digital, man-in-the-loop and hardware-in-the-loop tools.

**Propulsion Engineer**
Define and verify propulsion system performance requirements covering engine aero-thermodynamic, structural, electronic control and accessory subsystem component designs. Optimize propulsion system reliability, maintainability and life cycle cost.

**Structures Engineer**
Structural integrity of the aeronautical system including design criteria, vibrations, flutter, acoustics, sonic fatigue, static strength, durability and damage tolerance, external loads, fracture mechanics, weight control, weapon effects, force management and related areas.

**Support and Training Systems Engineer**
Development and integration of all support equipment and training systems necessary to operate, maintain or employ a weapon system.

**Survivability / Vulnerability Effectiveness Engineer**
Determine, through analyses, evaluations, and models, the ability of friendly weapon systems to operate, perform and survive against hostile weapon systems and environments.
**Systems Engineering Analysis Engineer**
The accomplishment of systems analysis using computer tools to determine the probability of mission effectiveness, the probability of risk occurrence, and the severity of each type action on a weapon system. Each of these analysis are used to identify and plan for the weapon system performance requirements.

**Systems Integration Engineer**
The identification, development and testing of all functional and physical interfaces / intrafaces of subsystems and end items for a weapon system. Usually involves integration of all other engineering specialties across the weapon system.
Chemical

Do you have a Bachelor of Science in Chemical Engineering?

If so, you may be eligible for a career in one of the following technical disciplines.

**Air Vehicles Subsystems Engineer**
Air vehicle subsystems including aerial refueling systems, fuel systems, environmental control and thermal management systems, engine installation, fire prevention and protection, landing gear/tires/brakes, auxiliary power systems and hydraulic systems.

**Crew / Human Systems Engineer**
Development, integration and functional performance of crew systems including crew station, escape systems, transparencies, human factors, oxygen systems, parachute systems, personal equipment and life support systems.

**Environmental, Safety & Health Engineer**
Assess and minimize weapon system impacts to the environment, human safety and health throughout the acquisition life cycle.

**Industrial Plant Management / Environmental Stewardship Engineer**
Civil and environmental engineering / management of the Air Force owned industrial plants.

**Systems Engineering Analysis Engineer**
The accomplishment of systems analysis using computer tools to determine the probability of mission effectiveness, the probability of risk occurrence, and the severity of each type action on a weapon system. Each of these analysis are used to identify and plan for the weapon system performance requirements.
Environmental

Do you have a Bachelor of Science in Civil/Environmental Engineering?

If so, you may be eligible for a career in one of the following technical disciplines.

Environmental, Safety & Health Engineer
Assess and minimize weapon system impacts to the environment, human safety and health throughout the acquisition life cycle.

Industrial Plant Management / Environmental Stewardship Engineer
Civil and environmental engineering / management of the Air Force owned industrial plants.
Do you have a Bachelor of Science in Computer Engineering?

If so, you may be eligible for a career in one of the following technical disciplines.

**Aeromechanics / Flight Control / Flight Qualities Engineer**
Predict, analyze, and verify air vehicle flight dynamics including aircraft aerodynamics, performance, flight stability and controllability, flying qualities, and the systems that control flight.

**Air Vehicles Design & Analysis Engineer**
Capability to accomplish integrated conceptual air vehicle synthesis and trade studies of existing or planned aircraft and cruise missile systems to support the definition of systems requirements, technology sensitivities or contractor evaluations.

**Avionics Systems / Integration Engineer**
Overall functional performance, interface between functions and installation of entire avionics systems in a weapon system.

**Communication / Navigation / Identification Engineer**
Communication systems including all voice and digital communications systems across the frequency spectrum. Navigation systems including equipment to perform inertial, radio and stellar navigation solutions and reference data for fire and flight control systems.

**Defensive Systems / Reconnaissance Engineer**
Threat analysis, electronic combat modeling and simulation and electronic combat systems, including application of radio frequency, electro-optic and infrared technologies to threat/missile warning, reconnaissance and countermeasures systems.

**Embedded Computer Systems Engineer**
Processes to design, develop, manufacture, integrate, test, and deploy mission critical computer resources associated with an embedded weapon system.

**Low Observables Engineer**
Airborne signature reduction. This includes signature reduction techniques for radar cross section, infrared, visual acoustic, engine suppression and associated subsystems.

**Modeling & Simulation Engineer**
The application of modeling and simulation throughout a weapon's system entire life cycle used to develop data and information for managerial or technical decision making. Includes use of digital, man-in-the-loop and hardware-in-the-loop tools.

**Offensive Systems / Sensors Engineer**
Offensive systems include a wide range of avionics capabilities required for targeting and attack functions. Sensor technology includes the areas or airborne radar systems, airborne laser / electro-optical systems and photographic sensors.

**Support and Training Systems Engineer**
Development and integration of all support equipment and training systems necessary to operate, maintain or employ a weapon system.

**Survivability / Vulnerability Effectiveness Engineer**
Determine, through analyses, evaluations, and models, the ability of friendly weapon systems to operate, perform and survive against hostile weapon systems and environments.

**Systems Engineering Analysis Engineer**
The accomplishment of systems analysis using computer tools to determine the probability of mission effectiveness, the probability of risk occurrence, and the severity of each type action on a weapon system. Each of these analysis are used to identify and plan for the weapon system performance requirements.
Do you have a Bachelor of Science in Electrical Engineering?

If so, you may be eligible for a career in one of the following technical disciplines.

**Aeromechanics / Flight Control / Flight Qualities Engineer**
Predict, analyze, and verify air vehicle flight dynamics including aircraft aerodynamics, performance, flight stability and controllability, flying qualities, and the systems that control flight.

**Air Vehicles Design & Analysis Engineer**
Capability to accomplish integrated conceptual air vehicle synthesis and trade studies of existing or planned aircraft and cruise missile systems to support the definition of systems requirements, technology sensitivities or contractor evaluations.

**Armament Integration Engineer**
All aspects of armament or weapons integration onto a fighter or bomber with the final product of "weapons on target." This includes safety, functional performance, mechanical, electrical and human interfaces, aerodynamic performance and aircraft/weapon compatibility during carriage and launch.

**Avionics Systems / Integration Engineer**
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**Survivability / Vulnerability Effectiveness Engineer**
Determine, through analyses, evaluations, and models, the ability of friendly weapon systems to operate, perform and
survive against hostile weapon systems and environments.

**Systems Engineering Analysis Engineer**
The accomplishment of systems analysis using computer tools to determine the probability of mission effectiveness, the probability of risk occurrence, and the severity of each type action on a weapon system. Each of these analysis are used to identify and plan for the weapon system performance requirements.

**Systems Integration Engineer**
The identification, development and testing of all functional and physical interfaces / intrafaces of subsystems and end items for a weapon system. Usually involves integration of all other engineering specialties across the weapon system.
Industrial

Do you have a Bachelor of Science in Industrial Engineering?

If so, you may be eligible for a career in one of the following technical disciplines.

**Environmental, Safety & Health Engineer**
Assess and minimize weapon system impacts to the environment, human safety and health throughout the acquisition life cycle.

**Industrial Plant Management / Environmental Stewardship Engineer**
Civil and environmental engineering / management of the Air Force owned industrial plants.

**Manufacturing & Industrial Engineer**
Development of production process designs and integration of process designs with the product. Integration of these designs into factory planning and production execution.

**Modeling & Simulation Engineer**
The application of modeling and simulation throughout a weapon’s system entire life cycle used to develop data and information for managerial or technical decision making. Includes use of digital, man-in-the-loop and hardware-in-the-loop tools.

**Support and Training Systems Engineer**
Development and integration of all support equipment and training systems necessary to operate, maintain or employ a weapon system.
Do you have a Bachelor of Science in Mechanical Engineering?

If so, you may be eligible for a career in one of the following technical disciplines.

**Aeromechanics / Flight Control / Flight Qualities Engineer**
Predict, analyze, and verify air vehicle flight dynamics including aircraft aerodynamics, performance, flight stability and controllability, flying qualities, and the systems that control flight.

**Air Vehicles Design & Analysis Engineer**
Capability to accomplish integrated conceptual air vehicle synthesis and trade studies of existing or planned aircraft and cruise missile systems to support the definition of systems requirements, technology sensitivities or contractor evaluations.

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**Industrial Plant Management / Environmental Stewardship Engineer**
Civil and environmental engineering / management of the Air Force owned industrial plants.

**Manufacturing & Industrial Engineer**
Development of production process designs and integration of process designs with the product. Integration of these designs into factory planning and production execution.

**Modeling & Simulation Engineer**
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**Propulsion Engineer**
Define and verify propulsion system performance requirements covering engine aero-thermodynamic, structural, electronic control and accessory subsystem component designs. Optimize propulsion system reliability, maintainability and life cycle cost.

**Structures Engineer**
Structural integrity of the aeronautical system including design criteria, vibrations, flutter, acoustics, sonic fatigue, static strength, durability and damage tolerance, external loads, fracture mechanics, weight control, weapon effects, force management and other related areas.

**Support and Training Systems Engineer**
Development and integration of all support equipment and training systems necessary to operate, maintain or employ a weapon system.

**Survivability / Vulnerability Effectiveness Engineer**
Determine, through analyses, evaluations, and models, the ability of friendly weapon systems to operate, perform and survive against hostile weapon systems and environments.
**Systems Engineering Analysis Engineer**
The accomplishment of systems analysis using computer tools to determine the probability of mission effectiveness, the probability of risk occurrence, and the severity of each type action on a weapon system. Each of these analysis are used to identify and plan for the weapon system performance requirements.

**Systems Integration Engineer**
The identification, development and testing of all functional and physical interfaces / intrafaces of subsystems and end items for a weapon system. Usually involves integration of all other engineering specialties across the weapon system.
Do you have a Bachelor of Science in another Engineering Discipline?

If so, you may be eligible for a career in one of the following technical disciplines.

**Crew / Human Systems Engineer**
Development, integration and functional performance of crew systems including crew station, escape systems, transparencies, human factors, oxygen systems, parachute systems, personal equipment and life support systems. *Human Factors Engineer, Biomedical Engineer*

**Environmental, Safety & Health Engineer**
Assess and minimize weapon system impacts to the environment, human safety and health throughout the acquisition life cycle. *Biomedical Engineer*

**Low Observables Engineer**
Airborne signature reduction. This includes signature reduction techniques for radar cross section, infrared, visual acoustic, engine suppression and associated subsystems. *Materials Engineer*

**Manufacturing & Industrial Engineer**
Development of production process designs and integration of process designs with the product. Integration of these designs into factory planning and production execution. *Manufacturing Engineer*

**Support and Training Systems Engineer**
Development and integration of all support equipment and training systems necessary to operate, maintain or employ a weapon system. *Human Factors Engineer*

**Survivability / Vulnerability Effectiveness Engineer**
Determine, through analyses, evaluations, and models, the ability of friendly weapon systems to operate, perform and survive against hostile weapon systems and environments. *Nuclear Engineer*