Systems Engineering (1 of 3) Internship Opportunities

	Primary Responsibilities	Preferred Majors	Available Sites*
Systems Architecture, Integration and Design	▪ Identify, validate and allocate an integrated set of product requirements that results in a balanced design. ▪ Perform analysis to ensure the design as a whole is well understood under normal and nonnormal operating conditions. ▪ Identify and manage risks.	Aero, Mechanical, Electrical, Software or Systems	Huntsville, Al.; Mesa, Az., Southern California; Colorado Springs, Co.; St. Louis, Mo.; Ridley Park, Pa.; Houston, Texas; Arlington, Va.; Seattle, Wash. area
Customer Engineering	▪ Support purchaser activities. ▪ Analyze and improve processes. ▪ Improve tool and data from various databases.	Civil, Mechanical, Chemical and Electrical	Seattle, Wash. area
Certification	▪ Define the regulatory certification requirements for a specific product. ▪ Review for accuracy, facilitate necessary changes, track program to certification schedule and document data correction.	Aerospace/Aeronautical, Chemical, Electrical, Math, Mechanical, Physics, Systems	Huntsville, Al.; Mesa, Az., Southern California; Colorado Springs, Co.; St. Louis, Mo.; Ridley Park, Pa.; Houston, Texas; Arlington, Va.; Seattle, Wash. area
Regulatory Administration	▪ Coordinate development of regulatory certification requirements and means of compliance, address certification risk items and facilitate resolution of technical issues.	Aero, Mechanical, Electrical, Software, Systems	Southern California; Seattle, Wash. area
System Safety	▪ Analyze accident, incident, event and systems performance data to determine safety risk levels. ▪ Identify and analyze potential safety hazards in design, operational procedures, maintenance practices and manufacturing processes. ▪ Coordinate analyses for Safety Review Board and Engineering Investigation Board reviews and corrective actions through the functional design organizations and various Government agencies.	Aerospace/Aeronautical, Mechanical, Systems	Seattle, Wash. area

*Site availability is subject to change.

Systems Engineering (2 of 3) Internship Opportunities

	Primary Responsibilities	Preferred Majors	Available Sites*
Reliability, Maintainability, System Health, Survivability, Vulnerability, Susceptibility, Testability	▪ Perform failure modes and effects analysis, fault tree analysis, 3D human modeling for maintenance access, reliability and maintainability predictions, and component analysis to assess design characteristics. ▪ Gather and provide data to report validation and verification compliance activities, through analysis, inspection, demonstration or test, to assess adherence to specifications or regulatory requirements. ▪ Have a basic knowledge of root cause analysis and corrective action, failure mode effect and criticality mission analysis for development and in-service products.	Aerospace/Aeronautical, Chemical, Electrical, Math, Mechanical, Physics, Systems	Huntsville, Al.; Mesa, Az., Southern California; Colorado Springs, Co.; St. Louis, Mo.; Oklahoma City, Okla.; Ridley Park, Pa.; Houston, Texas; Arlington, Va.; Seattle, Wash. area
Product Lifecycle Management	▪ Analyze engineering design, manufacturing and product support requirements to develop and implement new process and tool technologies. ▪ Apply an understanding of product design and build processes and standard methods to construct program planning models simulating the multifunctional dependencies of the product development lifecycle.	Mechanical, Aero, Electrical, Systems	Huntsville, Al.; Mesa, Az.; Southern California; St. Louis, Mo.
Human System Integration and Human Factors and Ergonomics	▪ Develop and maintain effective and efficient flight crew interface. ▪ Apply basic knowledge of human capabilities and constraints along with knowledge of users and their environments to assist in development, test and evaluation of safe and effective user interfaces.	Mechanical, Electrical, Aerospace (MS Human Factors), Chemical, Electrical, Math, Physics, Systems	Huntsville, Al.; Mesa, Az.; Southern California; Colorado Springs, Co.; St. Louis, Mo.; Oklahoma City, Okla.; Ridley Park, Pa.; Houston, Texas; Arlington, Va.; Seattle, Wash. area
Modeling, Simulation and Operational Analysis	▪ Apply knowledge of mathematical modeling and advanced mathematics. ▪ Perform multidisciplinary trade studies. ▪ Perform operational effectiveness analysis methodologies (mission and system). ▪ Resolve customer, industry and Government requirements, interfaces and operational effectiveness and perform lifecycle cost analysis.	Electrical, Software, Systems	Huntsville, Al.; Mesa, Az.; Southern California; Colorado Springs, Co.; St. Louis, Mo.; Oklahoma City, Okla.; Ridley Park, Pa.; Houston, Texas; Arlington, Va.; Seattle, Wash. area

*Site availability is subject to change.

Systems Engineering (3 of 3) Internship Opportunities

	Primary Responsibilities	Preferred Majors	Available Sites*
Communications and System Security	▪ Apply network communication concepts, principles and architectures. ▪ Apply end-to-end knowledge of network transport technologies, systems, environments, services, protocols, performance monitoring and diagnostic analysis. ▪ Apply knowledge of verification, validation, certification, qualification processes and procedures. ▪ Work with system security domains (information assurance, anti-tamper, intrusion detection, software protection, software assurance, communications security, encryption, key management and countermeasures).	Communication Systems, Electrical, Software, Systems	Huntsville, Al.; Mesa, Az., Southern California; Colorado Springs, Co.; St. Louis, Mo.; Oklahoma City, Okla.; Ridley Park, Pa.; Houston, Texas; Arlington, Va.; Seattle, Wash. area
Mechanical Systems Design and Analysis	▪ Define aircraft environmental controls systems (ECS) — architecture, performance, analysis, certification and validation. ▪ Perform ECS design and spatial integration, develop fabrication plans, and coordinate manufacturing. ▪ Perform supplier coordination and management — requirements definition, technical oversight and project management.	Mechanical, Aerospace, Aviation, Environmental; Emphasis in Fluid Mechanics, Thermodynamics, Heat Transfer	Seattle, Wash. area
Mechanical Hydraulics	▪ Develop and functionally integrate mechanical, electronic, hydraulic and thermal requirements to create architectures and designs for the following aircraft systems: brake control, antiskid, and autobrake; landing gear actuation; steering; cargo door actuation; and hydraulic power generation. ▪ Research and investigate emerging technologies to ensure that future system designs bring value to the aircraft and lead competition in marketplace.	Mechanical, Electrical, Computer Science, Physics	Seattle, Wash. area

*Site availability is subject to change.