

Boeing Engineering Intern Program—Systems Engineering (1 of 3)

	Primary Responsibilities	Preferred Majors	Available Sites*
Systems Architecture, Integration, and Design	<ul style="list-style-type: none"> 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 non-normal 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, TX; Arlington, VA; Seattle, WA, area
Customer Engineering	<ul style="list-style-type: none"> Support purchaser activities. Analyze and improve processes. Improve tools and data from various databases. 	Civil, Mechanical, Chemical and Electrical	Seattle, WA, area
Certification	<ul style="list-style-type: none"> 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, TX; Arlington, VA; Seattle, WA, area
Regulatory Administration	<ul style="list-style-type: none"> 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, WA, area
System Safety	<ul style="list-style-type: none"> 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, WA, area

*Site availability is subject to change.

Boeing Engineering Intern Program—Systems Engineering (2 of 3)

	Primary Responsibilities	Preferred Majors	Available Sites*
Reliability, Maintainability, System Health, Survivability, Vulnerability, Susceptibility, Testability	<ul style="list-style-type: none"> 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, or 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, OK; Ridley Park, PA; Houston, TX; Arlington, VA; Seattle, WA, area
Product Life Cycle Management	<ul style="list-style-type: none"> 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 life cycle. 	Mechanical, Aero, Electrical, Systems	Seattle, WA, Huntsville, AL; Mesa, AZ; Southern California; St. Louis, MO
Human System Integration and Human Factors and Ergonomics	<ul style="list-style-type: none"> Develop and maintain an 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, OK; Ridley Park, PA; Houston, TX; Arlington, VA; Seattle, WA, area
Modeling, Simulation, and Operational Analysis	<ul style="list-style-type: none"> 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	Oklahoma City, OK; Ridley Park, PA; Houston, TX; Arlington, VA; Seattle, WA, area

*Site availability is subject to change.

Boeing Engineering Intern Program—Systems Engineering (3 of 3)

	Primary Responsibilities	Preferred Majors	Available Sites*
Communications and System Security	<ul style="list-style-type: none"> 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, OK; Ridley Park, PA; Houston, TX; Arlington, VA; Seattle, WA, area
Mechanical Systems Design and Analysis	<ul style="list-style-type: none"> 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, WA, area
Mechanical Hydraulics	<ul style="list-style-type: none"> 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 the marketplace. 	Mechanical, Electrical, Computer Science, Physics	Seattle, WA, area

*Site availability is subject to change.