



ASC Summer Student Program

job opportunities

Summer Student Opportunities

Work with talented professionals within the energy sector, and enjoy a rewarding experience where openness, knowledge sharing, and innovation are at the very core of everything we do.

Aramco offers undergraduate students the opportunity to gain professional experience through the Aramco Summer Student Program (SSP). From May - August, students can participate in and contribute to the everyday business activities of Aramco's global corporate environment while exploring their interests and developing professional skills and competencies.

DEADLINE TO APPLY: 10.28.21

Technical Services Department (Houston)

Our Technical Services team is focused on finding technologies that ensure safe, reliable operations that contribute to the success of Saudi Aramco.

Summer Student Engineering Opportunity

Disciplines: Mechanical or Chemical Engineering

The summer student will assist senior engineers in technology scouting, technical assessments, and inspection activities.

This assignment will provide an opportunity to become familiar with searching industry-wide technical standards and identify important design factors such as pressure and temperature ratings, minimum wall thickness, corrosion allowance, and material groups.

Typical activities include:

- Assisting senior engineers in query database of minimum wall thicknesses (w.t.) for valves in accordance with ASME B16.34 that's compared against company specification requirements and other industry standards. A few of the various valve standards and specifications needed for this assignment are listed below:
 - MSS SP-80, MSS SP-67, MSS SP-71, MSS SP-128, MSS SP-110, etc.
 - This database should include the following valve types: gate, globe, check, ball, butterfly, and plug for the following materials: Carbon Steel, Iron, Bronze, etc.

Summer Student Digital Transformation Opportunity

Disciplines: Engineering, with exposure to digital transformation

The summer student will support Aramco America's digital transformation strategy and initiatives under senior engineers and specialists.

Typical activities include:

- Technology scouting
- Reports development
- Assist Digital Transformation lead engineers

Procurement & Supply Chain Management Department (Houston)

The Procurement and Supply Chain Management Department (P&SCM) provides efficient, cost-effective procurement, logistics, and materials management services to Saudi Aramco. These services include purchasing, expediting, and export shipping of more than \$120 million worth of materials annually to support the operations of Saudi Aramco. P&SCM also provides logistical services to Saudi Aramco's Project Management Teams and handles domestic and executive purchases.

Summer Student Procurement & Supply Chain Opportunity

Disciplines: Supply Chain Management

Summer students will work closely with P&SCM professionals.

Typical activities include:

- Working on Supplier Performance Management Projects to ensure vendors are meeting their targeted Key Performance Indicators and metrics
- Participating in negotiations with suppliers and assisting with expediting placed purchase orders to ensure vendor confirmed delivery dates are met and material is shipped according to Aramco specifications
- Participating in the Ariba System Optimization Project

Human Resources Department (Houston)

Our Human Resources team provides a range of staffing services, such as recruitment, career development, and other support to strengthen the workforce of Saudi Aramco and its affiliates.

Summer Student Management Information Systems Opportunity

Disciplines: Computer Science, Business, Management Information Systems

The summer student will support leaders with management information system enhancements.

Typical activities include:

- System customization
- Ticketing
- New development

Summer Student Talent Acquisition Opportunity

Disciplines: Marketing, HR, Communications, Business Administration

The summer student will provide support in areas of passive/active candidate sourcing and recruitment-related tasks and assignments.

Typical activities include:

- Supporting recruitment functions throughout the life cycle from candidate sourcing, screening, assisting with interview scheduling/preparation, and relocation/onboarding
- Using existing candidate sourcing tools to identify passive candidates for expatriate and domestic requisitions
- Working closely with Talent Sourcing Advisor to learn Avature CRM and prioritize search projects

Planning & Programs Analyst OR Budgets & Accountability Analyst Opportunity

Disciplines: General Business, Finance/Accounting, Economics, MIS

The ideal candidate should have a basic understanding of Excel. Some experience with coding (Python, SQL, or R), RPA's, and Power BI would be a plus but not required to do the job.

Typical activities include:

- Assist with the development of 3-Year Business Plan outlining company and department initiatives, proposed and allocated budget, forecasted headcount, Key Performance Indicators (KPIs), and proposed resource and finance plans for special projects (e.g. Capital and IT projects).
- Perform month-end and quarter-end procedures such as Variance Analysis, KPIs Reporting, Account Corrections, Year-end Forecasting, and Budget Reallocation.
- Lead and/or assist with new initiatives and projects to streamline financial reporting processes and capabilities. This could include items such as developing new Power BI dashboards, creating RPA's to eliminate a mundane/repetitive process, or enhancing KPI's.

Finance Department (Houston)

Our Finance team provides various services to maintain high-quality, timely, and cost-effective management information and analysis, and a system of effective controls that assists in implementing Aramco Americas' mission and objectives.

Summer Student Accounting Opportunity

Disciplines: Accounting, Finance

The summer student will assist with seasonal administrative and compliant workload.

Typical activities include:

- Corporate Tax - local tax returns and other tax related administrative duties
- Financial Accounting - annual capital asset inventory
- Payroll - assist in transitioning active employee files to an electronic platform

Executive Services Department (Houston)

Executive Services reports to the Aramco Americas President & CEO and coordinates all VIP visits to North America in general, and to Houston in particular.

Summer Student Executive Events Opportunity

Disciplines: Marketing, Hospitality

The summer student will assist in the development of hospitality cross-cultural events in a corporate environment.

Typical activities include:

- Assist with possible Summer Event Planning
- Assist with preferred vendor lists for Executive Services' use
- Help with organization and various tasks of Executive Services Department

Public Affairs Department (Houston)

Aramco Americas Public Affairs serves a dual role in Houston - first to support and advocate the overall business interests of Saudi Aramco in North America, and second to maintain a positive image locally through programs of good corporate citizenship. These efforts complement Saudi Aramco's global reputation as a reliable supplier of energy while promoting important intercultural understanding.

Summer Student Digital Communications Opportunity

Disciplines: Communications, Journalism, Public Relations with an emphasis on digital processes

The summer student will assist in the development of digital communications production within the department's Digital Group.

Typical activities Include:

- Social media/media relations development
- Presentation preparation for Corporate Communications and *AramcoWorld*

Houston R&D Center

Work with experienced scientists to address upstream challenges including drilling, exploration, production and technology advancements.

Reservoir Engineering Technology Intern Opportunity

Disciplines: Engineering (any), Chemistry, Material Science, Biologist, Physics, Geology, Geochemistry

Houston RETT develops technologies to overcome challenges in exploration and production and optimize development of unconventional resources in the Kingdom of Saudi Arabia.

Typical activities Include:

- Assist staff in conducting R&D focused on challenges encountered by the unconventional assets in the Kingdom
- RETH has a broad research portfolio that provides for a diverse range of learning opportunities
- Conduct laboratory measurements and experiments that help improve our understanding of these unconventional resources
- Organize, analyze and integrate data gathered within R&D or from external laboratories
- Students are assigned mentors and will be challenged to carry out their duties independently.
- (Graduate Student Levels) Towards the end of the assignment, students will be encouraged to assemble their work/study into a presentation or manuscript for submission to a conference or a journal.
- (Undergraduate Student Levels) Towards the end of the assignment, students will assemble their work for a team presentation. Their work will be incorporated with prior and on-going work into a presentation or manuscript for submission to a conference or a journal.

Production Technology Intern Opportunity

Disciplines: Chemistry, Chemical Engineer, Material Science, Petroleum Engineer

Support Saudi Aramco's vision of becoming the preeminent center for subsurface R&D by delivering industry-leading technologies to enhance the production of hydrocarbons in the area of smart fluid, production enhancement and geomechanics.

Summer students would work with PTT in our high-end smart fluid lab with assignments dealing with stimulation fluids for conventional and unconventional reservoirs.

Typical Activities include:

- Stimulation fluid preparation and characterization
- Running analytical equipment for sample analysis
- Application testing such as core flood experiment and rotational disc apparatus
- Source rock preparation for microscopic analysis

Petroleum Systems Modeling Intern Opportunity

Disciplines: Geology, Chemistry, Biology, Petroleum Engineering

Deliver industry-leading technologies to accelerate the discovery and recovery of hydrocarbons. These technologies support fast and accurate predictions of the subsurface with quantitative representations of the associated uncertainties.

Summer students would work with PSMT in our high-end geochemistry lab with assignments dealing with Reservoir characterization and CO₂ subsurface storage.

Typical Activities include:

- Rock preparation for geochemical analysis
- Running samples for standardization/calibration of geochemical instruments
- Source rock and coal preparation for microscopic analysis
- Students with hands-on Lab experience will have an advantage

Drilling Technology Intern Opportunity

Disciplines: Geology, Chemistry, Biology, Petroleum Engineering

Develop future drilling and workover technologies that will place Saudi Aramco among the best in the industry in terms of safety, performance, efficiency, and cost effectiveness.

Typical Activities include:

- Drilling and cementing fluid preparation and characterization
- Material synthesis, characterization and applications
- Operate intricate laboratory equipment

Sensors Development Technology Intern Opportunity

Disciplines: Electrical Engineering, Mechanical Engineering or related fields

Develop innovative ideas for new oilfield measurement instruments into field-tested prototypes. With expertise in sensing science and engineering design, researchers have created faster more cost-effective ways of gathering data.

Typical Activities include:

Electrical Engineering Summer Student

For sensor systems in oil field instruments student will work on:

- Circuit Design
- Firmware programming
- Testing of electronics for oil field sensors

Mechanical Engineering Summer Student

For sensor systems in oil field instruments student will work on:

- Support mechanical design (SolidWorks)
- Machine shop fabrication
- Welding
- Additive manufacturing
- Flow-loop Testing

Artificial Intelligence Technology Intern Opportunity

Disciplines: Computer Science, Data Science, Mathematics

Research and develop machine learning and artificial intelligence technology for upstream applications, to turn Aramco data into improved decision making, automation, operation efficiency and sustainability.

Typical Activities include:

- Core Image Data Analysis
 - Refactor and clean research code to production-ready code and migrate to dashboard platform.
 - Investigate correlation of core image quality to model performance.
 - Benchmark models performance.
- Time series analysis in virtual flow metering
 - Set up and test online streaming database.
 - Evaluate features importance of flow rates in forecasting.
 - Explore anomaly patterns in sensor data.

Geophysics Technology Intern Opportunity

Disciplines: Disciplines: Geophysics, Geoscience, Data Science

Conducts research on advances in surface and borehole seismic data processing and inversion and developing rock-physics enabled integrated geosolutions technologies for geophysical support of onshore and offshore E&D workflows, and Drilling Hazards Characterization.

Typical Activities include:

- Developing machine learning methods
- Analysis of borehole seismic and distributed acoustic sensing data
- Developing rock physics models for pore pressure prediction

Boston R&D Center

Work closely with experienced scientists to address upstream & downstream challenges on the nanoscale and reservoir simulation.

Materials Technology Intern Opportunity

Disciplines: Chemistry, Chemical Engineering, Material Science

Boston MTG develops new and advanced materials to provide energy-efficient membrane-based solutions to processing challenges in the oil and gas industry

Typical Activities include:

- Materials Development
- Observing and recording the structure and properties of materials
- Identifying processing methods
- Recording performance of materials in various applications

Catalysis Tech Intern Opportunity

Disciplines: Chemistry, Chemical Engineering, Material Science

Apply materials research and development to the creation of new catalysts and technologies for chemical conversions, maximizing the value of Aramco's hydrocarbons by expanding production of value-added chemicals. Investigate the underlying mechanism of corrosion in order to predict and prevent infrastructure loss.

Typical Activities include:

- Catalysts synthesis
- Catalyst characterization
- Chemical processes testing

Reservoir Engineering Technology

Disciplines: Engineering (any), Chemist Material Science, Physics

Boston research harnesses the potential of novel nanomaterials and the analytical tools of nanotechnology to increase reservoir recovery and enhance the degree of monitoring and evaluation for improved reservoir understanding.

Typical Activities Include:

- Prototype and test concepts of microfluidics and other devices for screening of reservoir recovery or acid treatment fluids.
- Investigate synthesis pathways and properties of various derivatives of small molecule families; understand their stability and mobility in different pH conditions in hydrocarbon reservoirs.
- Study novel nanofluids' behaviors for enhanced oil mobilization, including in optical microfluidic chips with fluorescence imaging and other tools.
- Develop methods for in-field measurement of fluorescence signals of encapsulated dyes that can mark nanoparticles or other tags injected into the subsurface.
- Process data; write up results; participate in drafting reports, papers, and patent disclosures.

Detroit R&D Center

Our interns will work with top scientists to reduce greenhouse gas emissions by increasing fuel efficiency, develop transportation technologies and analysis of future mobility modes.

Computational Modeling Intern Opportunity

Disciplines: Computer Science

Utilizing computational modeling to research and develop innovative technologies that promote the internal combustion engine as a clean, efficient and sustainable mode of transportation.

Typical Activities include:

- Use C to code an ignition model into the CONVERGE CFD software and validate the model performance in an engine.
- Use GT-Power to update an existing GT engine model and evaluate the engine performance

Strategic Transport Technology Intern Opportunity

Disciplines: Computer Science, Data science, Material Science, Mechanical engineering

Plan, execute, and communicate technical analysis relevant to Saudi Aramco's sustainable mobility activities. Specifically, with a focus on climate and energy analysis, future mobility modes, transportation technologies, regulatory policy, and economic impacts.

Typical Activities include:

- Working with the STAT scientist to develop a Total cost of ownership model for alternative vehicle technologies (such as fuel cell vehicles and battery-swapping vehicles)
- Analysis of vehicle demographic data to better understand BEV usage in US

Transport Technology Integration Intern Opportunity

Disciplines: Computer Science, Electrical Engineering, Mechanical Engineering

Research solutions on how to integrate fuel technology, combustion research and engine after treatment design while adding in custom electronic controls. Then combine these pieces together into an integrated vehicle to demonstrate the technology's viability and performance.

Typical Activities Include:

- Program a user interface for vehicle demonstrations using Qt
- Electrical schematic definition and creation in Visio
- 3D scanning and modeling of vehicle and engine integration projects

Propulsion Technology Intern Opportunity

Disciplines: Computer Science, Electrical Engineering, Mechanical Engineering

Develop sustainable and innovative propulsion technologies through experimentation to reduce carbon footprint and achieve zero criteria pollutants, including advanced engine combustion and aftertreatment concepts, novel fuel formulations, and mobile carbon capture.

Typical Activities include:

- Conduct experimental research to develop vapor-liquid equilibrium apparatus and perform solvent analysis for carbon capture
- Carry out advanced fuel formulation research on developing fuel component database, performing refinery streams analysis, and constructing physical property model for fuels