APPLICATION PROCEDURE:
To apply, go to the web site www.jlab-jobs.com. Click ‘current job opportunities’ and find the job that best suits your skills and interests. You may then join our talented community and apply for any available position. Current job openings are listed below:

**CO-OP STUDENT**

**10732.3 – Mechanical Engineering Co-Op – Spring/Summer 2013**
SALARY RANGE: $35,300 – $41,700

EXPERIENCE/EDUCATION REQUIREMENTS:
The following requirements are mandatory and cannot be waived. Applicants must be at least at the sophomore level (junior level or higher preferred) working on a degree in Mechanical Engineering at an ABET-accredited institution. Applicants must be full-time students with a GPA of 3.0 or better. Proof of full-time status and copies of transcripts are required. Students must have a strong foundation in the basic principles of mechanical engineering, as demonstrated by their course work and/or extra-curricular activities. Course work or experience in one or more of the following areas is preferred: machine design, structures, solid mechanics, fluids, thermodynamics, heat transfer, FEA. Technical knowledge/experience in machine shop techniques or interpreting drawings is a plus. Students should be skilled at both spoken and written communication, and able to work well with a diverse group of people. At the end of each semester, the student will be expected to write a cogent technical document summarizing his or her work over the course of the co-op term.

**10740 – Electrical Engineering Co-Op – Spring/Summer 2013**
SALARY RANGE: $35,300 - $41,700

EXPERIENCE/EDUCATION REQUIREMENTS:
The following requirements are mandatory and cannot be waived. Applicants must be at least at the sophomore level (junior level or higher preferred) working on a degree in Electrical Engineering at an ABET-accredited institution. Applicants must be full-time students with a GPA of 3.0 or better. Proof of full-time status and copies of transcripts are required. Students must have a strong foundation in the basic principles of electrical engineering, as demonstrated by their course work and/or extra-curricular activities. Course work in physics, EE laboratory and advanced studies in EE are preferred. Technical knowledge/experience in interpreting schematics, CAD and computer software is a plus. Students should be skilled at both spoken and written communication, and able to work well with a diverse group of people. At the end of each semester, the student will be expected to write a cogent technical document summarizing his or her work over the course of the co-op term.
**ENGINEERS**

**10684 – Senior Super Conducting Magnet Engineer**

**SALARY RANGE:** $103,900 - $198,900 (SSE/PSE)

**EXPERIENCE/EDUCATION REQUIREMENTS:**
MS or PhD in Engineering or Physics with at least ten (10) years documented experience leading significant scale super conducting magnet projects. Experience with Engineering Analysis tools such as FEA and TOSCA 3D Magnetic Analysis is required. Proficiency in magnet design codes, POISSON and/or OPERA, is strongly desired.

Project management experience with tools for tracking costing and scheduling progress is also required. Demonstrated experience in engineering project leadership involving large scale complete super conducting magnet systems. This experience must be supported by publications, work history and references. Experience in some of the following related areas is required: vacuum systems, load bearing support structures, liquid helium cryogenics, pressure vessel and pressure piping, load bearing positioning and alignment mechanisms. Prior work experience as an engineer in a leadership capacity responsible for complete superconducting magnet systems is required.

In addition to SC Magnet experience, familiarity with multiple aspects of accelerator design and theory, conventional electro magnets, ultra high vacuum, materials, welding, pressure systems and alignment is desired. Good communications skills and the ability to interact constructively with physicists, engineers, designers, technicians and procurement personnel are required.

**10756 – Mechanical Engineer – Stress Analysis**

**SALARY RANGE:** $54,400 - $85,800 (SE I)

$68,500 - $108,100 (SE II)

**EXPERIENCE/EDUCATION REQUIREMENTS:**
BS or MS Degree in Mechanical Engineering or Physics with at least four (4) years experience in an engineering capacity for the SE II Level. The candidate should have a demonstrated fluency with 3D CAD software design tools. Individual should have experience with engineering analysis tools such as ANSYS and IDEAS, doing either mechanical, thermal or fluid dynamic analysis, or TOSCA 3D Magnetic analysis. A firm foundation in mechanical engineering principles and practice are also necessary. Prior work experience as an engineer at a National Laboratory, Industrial Research Laboratory or University Research facility is desirable.

**10769 – Mechanical Engineer – Hall C**

**SALARY RANGE:** $54,400 - $85,800 (SE I)

$68,500 - $108,100 (SE II)

**EXPERIENCE/EDUCATION REQUIREMENTS:**
BS or MS Degree in Mechanical Engineering or Physics (SE I) with at least four (4) years experience in the development and procurement of large, complex engineered systems and components (SE II). The candidate shall have experience with engineering analysis tools such as TOSCA 3D Magnetic analysis or finite element analysis doing mechanical, thermal, or multi-physics analysis and should have a demonstrated fluency with 3D CAD software design (I-DEAS or NX preferred). A firm foundation in mechanical engineering principles and practice are also necessary. Experience with electromagnets, superconducting elements, or superconducting magnets is highly desired. Excellent organization and communication skills as well as presenting in a group setting are keys to success in this position.

Experience in some of the following related areas is desired: vacuum systems, cryogenics, fluid systems, stress and deflection analysis, superconducting materials, pressure vessel and pressure piping, load bearing support structures, load bearing positioning and alignment mechanisms, welding, weld processes, metal fabrication, and machining. Prior work experience as an engineer at a National Laboratory, Industrial Research Laboratory or University Research facility is desirable.
10770 - Super Conducting Magnet Engineer

**SALARY RANGE:** $68,500 - $108,100 (SE II)
$85,700 - $135,500 (SE III)

**EXPERIENCE/EDUCATION REQUIREMENTS:**
BS or MS Degree in Mechanical Engineering or Physics with at least four (4) years of experience in the development and procurement of large, complex engineered systems and components for the SE II and ten (10) years for SE III Level. The candidate shall have experience with engineering analysis tools such as TOSCA 3D Magnetic analysis or finite element analysis doing mechanical, thermal, or multi-physics analysis and should have a demonstrated fluency with 3D CAD software design (I-DEAS or NX preferred). A firm foundation in mechanical engineering principles and practice are also necessary. Experience with electromagnets, superconducting elements, or superconducting magnets is highly desired. Excellent organization and communication skills as well as presenting in a group setting are keys to success in this position.

Experience in some of the following related areas is desired: vacuum systems, cryogenics, fluid systems, stress and deflection analysis, superconducting materials, pressure vessel and pressure piping, load bearing support structures, load bearing positioning and alignment mechanisms, welding, weld processes, metal fabrication, and machining. Prior work experience as an engineer at a National Laboratory, Industrial Research Laboratory or University Research facility is desirable.

10773.1 – Design Engineer

**SALARY RANGE:** $54,400 - $108,100 (SE I/II)

**EXPERIENCE/EDUCATION REQUIREMENTS:**
Bachelor’s Degree in Mechanical Engineering with an emphasis on design, structures, material science, vibration, or heat transfer. Knowledge of Finite Element Analysis techniques and computer programming is also highly desired. The ability to complete tasks by employing practical experience, a full range of analytical skills, and by creating accurate documentation utilizing CAD is required. The ability to interact with other engineering, design personnel, and technicians is also required.

10773.2 – Design Engineer

**SALARY RANGE:** $54,400 - $108,100 (SE I/II)

**EXPERIENCE/EDUCATION REQUIREMENTS:**
Bachelor’s Degree in Mechanical Engineering with an emphasis on design, structures, material science, vibration, or heat transfer. Knowledge of Finite Element Analysis techniques and computer programming is also highly desired. The ability to complete tasks by employing practical experience, a full range of analytical skills, and by creating accurate documentation utilizing CAD is required. The ability to interact with other engineering, design personnel, and technicians is also required.

10779 – Finite Element Analysis (FEA) Mechanical Engineer

**EXPERIENCE/EDUCATION REQUIREMENTS:**
Bachelor’s Degree in Mechanical Engineering. Three (3) years experience in the alternative occupations of researcher or mechanical engineer or a closely related position.
Specific requirements: Must have concurrent experience with FEA, heat transfer, composite structures and welding analysis. Must demonstrate at interview ability to effectively communicate with multidisciplinary team.

Only applicants sending cover letter with CV, references and salary requirements to: ewing@jlab.org or to Jefferson Science Associates LLC, 628 Hofstadter Rd, Suite 2, Newport News, VA 23606 Attn: Susan F. Ewing will be considered.
**SCIENTISTS**

**10707.1 – Post Doctoral Fellow – Theory Center**

**SALARY RANGE:**  $48,600 - $73,200 (PD)

*(TERM POSITION ENDING TWO YEARS FROM HIRE DATE)*

**EXPERIENCE/EDUCATION REQUIREMENTS:**
A PhD in Theoretical Nuclear, Particle or Astrophysics. The successful candidate(s) will have a strong record of research accomplishments, and an ability to interact successfully with experimental colleagues. Applicants should submit curriculum vitae (CV); copies of any recent (un)published work, and arrange to have three (3) recommendation letters sent to Dr. Michael Pennington (michaelp@jlab.org).

**STUDENT INTERN**

**10775 - Electrical Engineering Student intern**

**SALARY RANGE:**  $16,700 - $29,300 (SS I)

**EXPERIENCE/EDUCATION REQUIREMENTS:**
Full time student intern with experience in soldering associated with the fabrication. Experience with the use of basic hand tools. Ability to read and understand schematic and assembly type drawings. Knowledge with PC’s using standard Windows based tools, such as MSWord and MSExcel. Must be a second semester college freshman or either semester during your sophomore year. Must be enrolled in a four-year college or university with a GPA of 2.5 or better. Proof of full-time status and copies of transcripts are required (unofficial copy acceptable).

*Physical Requirements:* Must be able to lift 30 lbs.

**TECHNICIAN/DRAFTER**

**10761 – Alignment Technician**

**SALARY RANGE:**  $46,500 - $63,300 (TD II)

*(TERM POSITION ENDING TWO YEARS FROM DATE OF HIRE)*

**EXPERIENCE/EDUCATION REQUIREMENTS:**
Associate’s Degree in Surveying, Engineering Technology or related field, (Bachelor’s preferred) and three (3) years of measurement or precision survey experience or an equivalent combination of education, experience and training required. A good understanding of coordinate systems, trigonometry and general mathematics is required with the ability to clearly record, reduce, summarize, and report on workplace activities and procedures. Knowledge of precision survey control measurement would be an advantage. Operational familiarity with windows based applications software (e.g. Word and Excel) and good problem solving, analytical, and quantitative skills are desirable.

*Physical Requirements:* Must be able to meet physical requirements for ODH and Radiation worker.
EXPERIENCE/EDUCATION REQUIREMENTS:
AA Degree plus three (3) years experience or High School Graduate with six (6) years relevant experience or equivalent combination of education and experience for the T/D II classification. AA Degree plus six (6) years experience or B.S. Degree with six (6) years relevant experience or equivalent combination of education and experience for the T/D III classification. The incumbent must be very familiar with PC hardware installations and diagnostic procedures. Must be highly knowledgeable in the system administration of Windows-based PCs. Knowledge of Mac OSX based systems is highly desirable. Must be able to work well with a wide variety of customers including fellow technicians, computer scientists, accelerator operators and physicists.