

**MECHANICAL ENGINEERING CO-OP**

To be considered for this position, please submit your application at [www.monsanto.com/careers](http://www.monsanto.com/careers) to requisition number 00KUX.

Work with team to provide mechanical engineering designs for large scale capital projects. May support multiple sites and multiple projects concurrently. Scope of work includes development of mechanical equipment specifications and execution of project engineering design. Project deliverables generally include equipment and material estimates, equipment and piping specifications, equipment and piping layouts, equipment and material purchase requisitions, construction bid packages, and on-site checkout of equipment and facilities.

Specific project duties include preparing project mechanical specifications and summaries for front end design packages, working with the mechanical designer to develop project drawings for equipment and piping layouts, reviewing equipment vendor drawings, and supporting construction.

Support engineer in development of mechanical equipment specifications  
Support development of construction drawings and specifications  
Support development of equipment checkout plans  
Support project checkout and startup at manufacturing site

Sophomore or Junior in Mechanical Engineering  
Agricultural background is helpful  
General mechanical aptitude  
Strong written and oral communication skills  
Good problem solving skills  
High degree of personal initiative  
Excellent organization and planning skills  
Ability to work well in a team environment and a diverse culture  
Must not have travel limitations

**Co-op Benefits**

Co-op's are paid a bi-weekly salary that is determined based upon degree program and year of completion in school. You will be reimbursed for your travel to and from the work site (1 Round Trip) at standard mileage rates or one round trip coach ticket. Housing Assistance is available for students if there are at least 50 miles between your permanent residence or school residence from the work site location. For co-op students (working >5 1/2 months) you are eligible for reimbursement for a single course during your co-op term with us.

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**ELECTRICAL ENGINEERING CO-OP**

To be considered for this position, please submit your application at [www.monsanto.com/careers](http://www.monsanto.com/careers) to requisition number 00KUY.

Provide electrical and process control engineering designs for assigned projects. May support multiple sites and multiple projects concurrently. Scope of work includes development and maintenance of standard electrical design and installation specifications, and execution of project engineering design. Project deliverables include electrical and controls estimates, electrical equipment specifications, power distribution and grounding design, process control system specifications, lighting design, equipment and materials purchase requisitions, electrical and controls drawings, construction bid packages, and on-site checkout of electrical and controls facilities.

Specific project duties include preparing project electrical specifications and summaries for front end design packages, working with the electrical designer to develop project drawings for electrical and control layouts, schematics and installation details, reviewing electrical and control vendor drawings, and supporting construction.

Key Responsibilities:

- Support development of electrical/instrumentation estimates for new projects
- Support engineer in development of electrical device specifications
- Support development of site power distribution and process control system design
- Support development of construction drawings and specifications
- Support development of electrical and controls checkout plans
- Support project checkout and startup at manufacturing site

Required:

- Sophomore or Junior in Electrical Engineering  
Agricultural background is helpful  
Strong written and oral communication skills  
Good problem solving skills  
High degree of personal initiative  
Excellent organization and planning skills  
Ability to work well in a team environment and a diverse culture  
General knowledge of National Electrical Code  
Must Not Have Travel limitations

**Co-op Benefits**

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### **CHEMICAL ENGINEERING CO-OP**

To be considered for this position, please submit your application at [www.monsanto.com/careers](http://www.monsanto.com/careers) to requisition number 00KV1.

The Manufacturing organization at Monsanto has an exciting Chemical Engineering Co-op (~6 months) available for Fall 2014.

The Chemical Engineering Co-op will apply engineering and safety principles in a manufacturing environment with responsibilities consisting of the application of engineering knowledge to projects within the facility. These projects, which will be performed under the guidance and assistance of experienced engineers, have the effect of reducing waste, increasing efficiencies, streamlining process, troubleshooting issues, identifying cost savings and/or updating procedures. This co-op assignment will last for six months.

#### **Qualifications:**

Students must be currently enrolled in college and have completed the junior year of an undergraduate degree in Chemical Engineering.

Only undergraduate students will be considered.

Students must have a minimum GPA of 2.8

Prior co-op or internship experience is a plus.

Selection is based on student credentials, behavioral-based interview results and the matching of students' skills to available openings.

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### **MECHANICAL 3-D CAD ENGINEERING CO-OP**

To be considered for this position, please submit your application at [www.monsanto.com/careers](http://www.monsanto.com/careers) to requisition number 00KV3.

Work with team to provide mechanical engineering designs for large scale capital projects. May support multiple sites and multiple projects concurrently. Scope of work includes development of mechanical equipment specifications and execution of project engineering design. Project

deliverables generally include equipment and material estimates, equipment and piping specifications, equipment and piping layouts, equipment and material purchase requisitions, construction bid packages, and on-site checkout of equipment and facilities.

Specific project duties include preparing project mechanical specifications and summaries for front end design packages, working with the mechanical designer to develop project drawings for equipment and piping layouts, reviewing equipment vendor drawings, and supporting construction.

Support engineer in development of mechanical equipment specifications

Support development of construction drawings and specifications

Support development of equipment checkout plans

Support project checkout and startup at manufacturing site

Sophomore or Junior in Mechanical Engineering

Agricultural background is helpful

General mechanical aptitude

Strong written and oral communication skills

Good problem solving skills

High degree of personal initiative

Excellent organization and planning skills

Ability to work well in a team environment and a diverse culture

Must not have travel limitations

### **Co-op Benefits**

Co-op's are paid a bi-weekly salary that is determined based upon degree program and year of completion in school. You will be reimbursed for your travel to and from the work site (1 Round Trip) at standard mileage rates or one round trip coach ticket. Housing Assistance is available for students if there are at least 50 miles between your permanent residence or school residence from the work site location. For co-op students (working >5 1/2 months) you are eligible for reimbursement for a single course during your co-op term with us.

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### **SEED PROCESS ENGINEERING CO-OP**

To be considered for this position, please submit your application at [www.monsanto.com/careers](http://www.monsanto.com/careers) to requisition number 00KUR.

The Manufacturing organization at Monsanto's corporate headquarter's in St. Louis, MO has exciting Seed Process Engineering co-op (~6 months) opportunities available for 2014, 1 role in Spring (January- July) and 1 role in Fall (June-December). As a seeds process engineering

co-op you will provide complete process engineering designs for all new projects that are assigned, in support of Seeds Supply operations and Seeds Breeding / Technology. Each Process Engineer co-op will provide this support to multiple sites and multiple projects concurrently. The deliverables for hand-off of each process design to a Project engineer or Project Manager will be clearly defined at the beginning of each project and the Process Engineer co-op will share ownership for successful project outcomes. Standard deliverables are defined and documented. Primary role is in the front-end definition of process intensive projects, covering functional specifications, process flow, definition of capacity parameters, equipment layouts, process and control descriptions, information in support of environmental permits, building layouts, plot plans, periodic reviews and startup support.

In addition the Process Engineer co-op provides ongoing support to plant operations through identification and evaluation of process improvement leverage areas and ideas, troubleshooting support for process issues, and identification of future projects with continuous improvement potential in support of the future capital plan. This is for a selected list of assigned locations and projects.

Students must be currently enrolled in college.

- Sophomore or Junior pursuing a degree in Mechanical Engineering, Agricultural Engineering or Ag Mechanization. Only undergraduate students will be considered.
- Students must have a minimum GPA of 2.8
- Agricultural background is helpful and experience with seeds process is a plus
- Students must be able to take off school for a period of 6 months and be able to work 40 hrs/week during the co-op term.

### **Co-op Benefits**

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### **PROJECT CONTROLS ENGINEERING CO-OP**

To be considered for this position, please submit your application at [www.monsanto.com/careers](http://www.monsanto.com/careers) to requisition number 00KVD.

- ' Work with project teams to control/manage project costs.
- ' Develop capital and expense cost forecasts/expenditure curves.
- ' Prepare & present project cost reports.
- ' Interface with engineering and construction contractors to validate cost estimates.
- ' Continuous oversight of project costs so as to provide early indication of potential deviations as well as to recommend corrective actions to project teams.

- ' Must be able to work with all team members to facilitate the gathering of diverse inputs related to project cost management and project execution planning.
- ' Work with project teams to develop conceptual and detailed project execution schedules.
- ' Analyzing project events so as to accurately depict project status and schedule trends throughout the entire project cycle
- ' Monitor and reconcile project cost reports.
- ' Work to improve estimating and scheduling practices & tools within the Project Controls Group.
- ' Construction contract cost management ' Enter contracts and contract change orders into SAP, service entries for receiving to allow invoice payment

Currently pursuing BS in Engineering

- \*Strong proficiency in Microsoft Office (EXCEL, WORD), project scheduling software (Microsoft Project, Timeline, Primavera).
- \*Proficient in use of SAP
- \*Working knowledge of the building/ facilities construction process & contract delivery methods.
- \*Strong written & verbal communications skills.
- \*Personal initiative ---- ability to function on a 'fast-track' handling several project assignments simultaneously.
- \*Ability to work well in a team environment that values diversity.

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