

## What you will be doing!

Assists in the design, layout, testing and evaluation of mechanical and electro-mechanical assemblies or systems. Performs product development activities including layout and interpretation of specifications and documentation requirements.

### Principal Accountabilities:

1. Assists in the development of product concept.
2. Develops detailed design drawings and related specifications for mechanical equipment, according to proposal specifications.
3. Assists in the analysis and creation of engineering concept, sketches, specifications, and related data and drawings to determine design factors, such as size, shape, and functionality.
4. Generates and continuously updates the layout of machine design and computes angles, weights, surface areas, dimensions, radii, clearance, tolerance studies, leverages, location of holes, materials, and finishes.
5. Computes magnitude, direction, and point of application of tension, compression, and bending forces, and develops geometric shape of machine parts to accommodate operating loads.
6. Drafts detailed multi-view drawings of machine and subassemblies including specifications for gear ratios, bearing loads, and direction of moving parts, using engineering data and standard references to ANSI Y 14.5.
7. Produces final release drawing packages to include all piece part drawings, assemblies, bill of materials, and required release documents.
8. May assist in computing and analyzing test data to determine efficiency of machine design.
9. Under engineer's direction, modifies machine design to correct operating deficiencies, reduce production problems, and reduce cost. Initiates and processes engineering changes.
10. May specialize in specific type of machine.
11. Uses computer-assisted design/drafting equipment and software to develop designs.
12. Works with manufacturing and procurement engineering during the design phase and during introduction of products from engineering to manufacturing floor.
13. Orders parts needed for prototype and initial production.
14. Responsible for quality of the design and documentation.
15. Deals with vendors to insure quality products.

16. May work with customers to resolve technical issues and determine customer specifications.
17. Supports technical publications in the development of customer documentation.
18. Assists in prototype build and debug.
19. Responsible for scheduling and monitoring individual activity to meet overall project schedule.
20. May require basic knowledge of pneumatics.

Minimum Requirements:

Associate's degree in a technical field or equivalent coursework in vocational or military training and 3-5 years of experience OR 5-7 years progressive experience and on-the-job training.

Physical Demands:

- ☒ Requires the ability to use a computer on a frequent basis.
- ☒ May have to remain stationary for extended periods, but also needs to be mobile enough to navigate through work areas.
- ☒ Position requires the ability to understand and interpret detailed documents and drawings.
- ☒ Must be able to communicate clearly with fellow workers

If you have someone in mind that is interested, can you have them email me their resume and I will hand it to Human Resources and the Mechanical Engineering Director at my company the very next day! [abadr1@binghamton.edu](mailto:abadr1@binghamton.edu)