

## **ChoiceSpine Job Description**

**Job Title:** Associate R&D Engineer

**Department:** R &D  
**Location:** Knoxville, TN  
**Reports To:** Director of R&D  
**Shift:** First  
**FLSA Status:** Exempt  
**Prepared By:** David Hannah  
**Prepared Date:** 10-24-17  
**Approved By:** Steve Ainsworth  
**Approved Date:** 10-24-17

### **SUMMARY**

Under routine supervision, primarily responsible for the development of new products and/or the enhancement of existing products. Involved in creating designs, modeling and drafting, utilizing a 3D CAD system. Other responsibilities include assisting in the development processes for Manufacturing, Quality Control, Regulatory and Planning for their particular project.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

- Research, develop, design spinal implants & instruments. New Product Development as well as maintenance of existing legacy systems.
- Generate 3D part files, 3D assembly files, & 2D technical drawings.
- Execute development of New Product Requests (SPECIALS) in an abbreviated schedule.
- Generates the Change Order process for initial Production Release & design revision. Researches impact on current Design Inputs, Design FMEA, & other associated documents in system Design History File. Data entry & revision in organizational Enterprise Resource Planning system.
- Core member of Product Development Project Team(s).
- Assist Project Manager and/or Group Leader in documentation requirements for system Design History Files.
- Review & approve product Inspection Standards in collaboration with Quality.
- When requested, provides assistance to Sales & Marketing on implant & instrument technical aspects, features, benefits.
- When requested, provides technical expertise to other areas of organization including, but not limited to, Group Leader, Spine Director, Regulatory, Sales & Marketing, Management.
- Produce mechanical testing protocols & interact with testing facilities during testing.
- Assist Purchasing with vendor requiring technical expertise & background. Provide Purchasing the necessary files to generate Requests for Proposals.
- Collaborate & offer background, knowledge, & expertise with other Group staff. Materials (stainless steel, titanium, aluminum, plastic), primary manufacturing (turning, milling, molding), secondary manufacturing processes (anodize, weld, polish, laser mark).
- Follow organizational & Group guidelines, procedures, protocols.

## **SUPERVISORY RESPONSIBILITIES**

Not Applicable

## **QUALIFICATIONS**

- Experience & comfortable in using 3D modeling software programs.
- Familiarity with Product Development cycle & critical gates.
- Knowledge of general manufacturing processes. Familiar with common medical device materials & the common practices to produce medical implants & instruments.
- Geometric Dimensioning & Tolerancing.
- Stack Up Analysis.
- Mechanical testing.
- Exposure & knowledge of ASTM, ISO, FDA standards, regulations, guidelines.
- BSE in Biomedical Engineering or Mechanical Engineering.
- Be comfortable with autonomy of responsibility in addition to a team environment.
- Be adept & flexible to manage multiple tasks at once while keeping to the set schedule of each task.
- Capable of presenting & sharing information with Management, surgeons, field personnel when requested.

## **EDUCATION and/or EXPERIENCE**

BS in Mechanical Engineering or Biomedical Engineering or equivalent experience, 0 to 1 year experience required.

## **CERTIFICATES, LICENSES, REGISTRATIONS**

Not Applicable

## **EXEMPTION**

Exempt

## **PHYSICAL DEMANDS**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to sit and talk or hear. The employee is occasionally required to stand; walk; use hands to finger, handle, or feel; and reach with hands and arms. The employee must occasionally lift and/or move up to 25 pounds.

## **WORK ENVIRONMENT**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. Working environment is typical of an office environment. The noise level in the work environment is usually moderate.