CNC (Computer Numerically Controlled) Programmer

**Definition of Class**
This is a non-supervisory position in which the incumbent uses computer numerically controlled (CNC) machines to cut and shape precision products. Incumbent is involved with the planning and fabricating of complex research and prototype instruments that are made from a variety of materials and are used to detect, measure, and record heat, pressure, speed, vibration, sound, illumination, and other areas of interest to scientific personnel. This position reports directly to the Machine Shop Supervisor.

**Examples of Work Performed**
Produces CAD/CAM (Computer Aided Design) drawings along with NC (Numerically Controlled) programs.

Creates machine tool language files from CAD/CAM files using such programs as FeatureCam, MasterCam or SurfCam; modifies, redesigns, retrofits and documents project underway as necessary to expedite completion of research.

Uses micrometers, gauges, optical comparators and other measuring devices to help determine if parts and assemblies are within design tolerances and specifications.

Designs and machines specialized precision parts which include: constructing, installing, and repairing scientific instruments and equipment using various shop equipment.

Operates lathes, milling machines, drills, welding, soldering equipment, and woodworking machines.

Works from verbal or written instructions, plans, drawing, and specifications of various details to determine the numerical language needed to develop a particular part within the computer program.

Modifies electrical circuits and programming of computerized digital-controlled machinery.

Inspects and tests completed work for accuracy and performance as specified in instructions.

Consults with customers regarding reconstruction and modification of equipment.

Provides technical instruction, assistance, and consultation to students and faculty.

Assists in training new personnel.

Performs related or similar duties as required or assigned.

**Essential Functions**
These essential functions include, but are not limited to, the following. Additional essential functions may be identified and included by the hiring Department.

1. Design research equipment by consulting with research personnel.
2. Fabricate research equipment using Computer Numerically Controlled Programs.
3. Perform quality control checks.
4. Advise Scientist regarding feasibility and practicality of design prototypes.

**Minimum Qualifications**
These minimum qualifications have been agreed upon by Subject Matter Experts (SMEs) in this job class and are based upon a job analysis and the essential functions. However, if a candidate believes he/she is qualified for the job although he/she does not have the minimum qualifications set forth below, he/she may request special consideration through substitution of related education and experience, demonstrating the ability to perform the essential functions of the position. Any request to substitute related education or experience for minimum qualifications must be addressed to the University of Mississippi's Department of Human Resources in writing, identifying the related education and experience which demonstrates the candidate's ability to perform all essential functions of the position.

**Physical Requirements:** These physical requirements are not exhaustive, and additional job related physical requirements may be added to these by individual agencies on an as needed basis. Corrective devices may be used to meet physical requirements.

**Physical Exertion:** The incumbent may be required to lift up to approximately 100 pounds.

**Vision:** Vision requirements for this job include close vision and color vision.

**Speaking/Hearing:** Ability to give and receive information through speaking and listening.

**Motor Coordination:** While performing the duties of this job, the incumbent is regularly required to stand; talk or hear; use hands to finger, handle or feel objects, tools or controls; and reach with hands and arms. The incumbent is frequently required to walk; climb or balance; and stoop, kneel, crouch or crawl. The incumbent is occasionally required to sit; and taste and smell.

**Experience/Educational Requirements:**

**Education:**
Associate Degree from an accredited two-year college in CNC (Computer Numerically Controlled) Programming or related field.

**Experience:**
Three (3) years of experience related to the above described duties.

**Substitution Statement:**
Related education and related experience may be substituted on a basis set forth by the Department of Human Resources.

**Interview Requirements**
Any candidate who is called for an interview must notify the Department of Human Resources in writing of any reasonable accommodation needed prior to the date of the interview.