CLASSIFICATION
Instructional Aide, Architectural and Mechanical Drafting and Design

FLSA Status: Nonexempt
EEOC Job Category: Office and Clerical
Union Representation: Represented

GENERAL PURPOSE
Under general supervision, provides instructional assistance, maintenance and clerical assistance in a Drafting (Manual/Computer Aided Drafting) laboratory; provides assistance and support of mechanical and architectural drafting techniques; assist students in proper uses of equipment and materials; performs assigned activities to ensure that Center/lab is kept in an orderly, safe and well-maintained manner; assure the preparation and maintenance of student files and instructional materials and supplies; and performs related duties as assigned.

ESSENTIAL DUTIES AND RESPONSIBILITIES
The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

1. Assist in the operation and maintenance of a drafting laboratory; provide instruction and assists students in the proper use and operation of computers and associated peripherals, provide instruction and assists students in the proper and safe use and operation of lab/shop equipment (rapid prototype systems Dimension and Z-Corp, CNC router, Co2 Laser, 3D scanners, drill press, various hand tools, table saw, skill saw, etc); demonstrate student laboratory exercises.

2. Prepare equipment, materials, supplies and training aids for classroom instruction and student laboratory assignments; assist instructors in planning for and conducting class sessions; prepare training aids for class sessions; demonstrate techniques, processes, and methods; demonstrate student laboratory exercises.

3. Maintain drafting lab in a safe, clean and orderly condition; inspects, troubleshoots, rebuilds, repairs, services and/or fabricates items as required; refers to manuals, schematics, wiring diagrams and uses diagnostic tools to determine and repair causes of equipment malfunction; recommend the major repair of rapid prototype systems, computers, and peripherals and shop equipment by outside vendors.

4. Instruct students in small groups or on an individual basis on class session material; answer questions and monitor the work of students in completing homework and lab assignments.

5. Provide work direction to work study students assigned to the program.

6. Assist in the preparation of requisitions to maintain an inventory of shop equipment, tools, materials and supplies; maintain budget, fiscal purchasing and inventory records; pick up and distribute mail.
OTHER DUTIES

1. Assists faculty in conducting special projects.

QUALIFICATIONS

Knowledge of:

1. Basic instructional techniques and procedures.

2. Drafting workstation computers and peripherals and three or more of the following software packages; AutoCad 2011-12, Zprint, Zedit, Catalyst, SolidWorks 2011, Revit 2011-2012 and 3D Studio Max.

3. Federal, state and local laws and regulations pertaining to the handling and disposal of hazardous materials and clean air requirements.

4. Safe work methods and safety regulations pertaining to work.

5. Proper methods of storing equipment, materials and supplies

6. Principles and practices of sound business communication; Correct English usage, including spelling, grammar and punctuation.

7. General office practices and procedures, and equipment.

8. Record-keeping techniques.

Ability to:

1. Provide instructional reinforcement to individuals and groups of students.

2. Demonstrate work processes, methods and techniques to students clearly and effectively.

3. Learn and demonstrate operation and maintenance of drafting laboratory equipment and materials.

4. Operate a personal computer and work station.

5. Assure the care and security of assigned equipment, materials and supplies.

6. Operate and maintain a wide variety of hand, power and shop tools and equipment associated with model building and prototyping parts.

7. Diagnose and repair a wide variety of equipment.

8. Estimate necessary amounts of materials and equipment to complete assignments.

9. Follow, demonstrate and enforce safe work practices, safety precautions, and safety policies and procedures when working with students and student workers.

10. Perform algebraic and shop mathematics.

11. Perform clerical duties such as filing, duplicating and maintaining records.
12. Plan and organize work.
13. Understand and follow oral and written directions.
14. Communicate clearly and effectively, both orally and in writing.
15. Work cooperatively with others.
16. Meet schedules and timelines

**Education, Training and Experience:**
A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from high school or GED equivalent and some related instructional assistance experience or completed coursework in architectural and mechanical drafting and design; or an equivalent combination of training and experience.

**Licenses; Certificates; Special Requirements:**
None.

**PHYSICAL AND MENTAL DEMANDS**
The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Physical Demands**
While performing the duties of this class, an employee is regularly required to stand, walk and sit; talk or hear, both in person and by telephone; use hands to finger, handle or feel objects or controls; reach with hands and arms. An employee also is regularly required to stoop, kneel, bend, crouch or crawl, climb or balance and lift up to 25 pounds.

Specific vision abilities required by this job include close vision, distance vision, depth perception, color vision and the ability to adjust focus.

**Mental Demands**
While performing the duties of this class, the employee is regularly required to use written and oral communication skills; read and interpret information; analyze and solve problems; observe and interpret people and situations; use basic math; learn and apply new information or skills; work with constant interruptions and interact with District management, faculty, staff, students and others encountered in the course of work. The employee may occasionally be required to interact with disruptive or abusive students.
WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The employee works in a learning center/lab or classroom-type setting, and the noise level can be moderately loud.

Revised: August 8, 2011