



Job Description

JOB TITLE: INSTRUCTIONAL ASSISTANT – MECHATRONICS

PAY GRADE: CL 20

LAST REVISED:

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job. Additional or different duties from the ones set forth below may be required to address changing business needs/practices.

SUMMARY DESCRIPTION

Under direction of assigned manager, performs a variety of technical and operational duties in support of Mechatronics laboratory programs and activities; sets up equipment for lab experiences; and maintains lab equipment, facilities, and materials.

REPRESENTATIVE DUTIES - *The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.*

1. Monitors safety and security procedures in classroom and laboratory; inspects equipment and tools for hazards and takes prompt action to prevent injury or other damage; cleans and monitors hazardous/caustic chemical fabrication areas and procedures; maintains chemical storage safety; inspects equipment guards and wiring; monitors computer wiring and cabling and takes prompt action to prevent injury or other damage; locks/unlocks Mechatronics Department doors, including laboratory doors, as needed to maintain departmental operational security.
2. Maintains inventories; assesses material, equipment, parts, and supply needs; determines cost and availability of departmental parts, supplies, and equipment as well as reliability, quality, safety, and compatibility of parts and supplies; coordinates with appropriate Purchasing Office staff member(s) as necessary; prepares requisitions to order equipment and maintain departmental supply needs.
3. Maintains departmental records including records of purchases, warranties and licenses, student and/or other temporary help, Material Safety Data Sheets (MSDSs), and related items.
4. Assists instructors, students, and staff; assists instructors with classroom preparation and equipment set-up; issues and collects tools, equipment, kits, and other materials; assembles and packages project parts kits.
5. Performs preventative and operational maintenance and makes minor repairs on a variety of departmental tools and equipment; inspects, repairs, and cleans equipment to ensure safety and proper functioning.
6. Designs and fabricates printed circuit boards for class and special projects; fabricates photographic tools; fabricates repair parts.
7. Participates in the preparation and maintenance of assigned budgets including grant budgets.
8. Assists in planning activities to meet future needs and changes in departmental programs and activities; assists with the development of class schedules, class offerings, instructor availability, and room assignments for various locations.
9. Picks-up and delivers equipment, parts, supplies, and other materials to various sites and locations; packages and classifies chemicals for hazardous waste removal and otherwise complies with proper protocols for safe handling, storage, transportation, and disposal of hazardous materials.

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10. Oversees student assistants and other temporary work forces; provides orientation and training to new student/temporary employees; assigns projects and daily work; evaluates work performed.
11. Performs a variety of general clerical and administrative duties in support of department operations and services; responds to requests for information regarding departmental programs and activities and/or refers to appropriate staff member(s) or organizational unit(s) for further assistance; photocopies materials and/or completes departmental orders for Reprographics Office printing services.
12. Performs related duties as required.

QUALIFICATIONS - *The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

Knowledge of:

Electronic principles, techniques, parts, tools, and equipment.

Fabrication tools and equipment.

Printed circuit board and photographic fabrication techniques.

Office procedures, methods, and equipment including applicable computer hardware and software applications such as word processing, desktop publishing, and database management as well as specialized software packages/applications for printed circuit board design.

Operational characteristics of laboratory apparatus, equipment, and materials pertaining to assigned laboratory and subject area.

Basic budgeting and bookkeeping concepts and techniques.

Basic inventory and purchasing processes and procedures.

English usage, spelling, grammar, and punctuation.

Occupational hazards and standard safety practices including methods and techniques used in handling and disposing of hazardous chemicals.

Ability to:

Perform general technical and operational duties in support of the Mechatronics laboratory.

Carry out the responsibilities of the position including set up of laboratory assignments, experiments, and student projects.

Fabricate printed circuit boards.

Fabricate parts for electronic equipment.

Promote safe working practices to students and others.

Interpret schematics, printed circuit boards, and electronic parts specifications.

Assemble and package project parts kits.

Operate, calibrate, and perform minor troubleshooting and repair of laboratory and office equipment tools.

Maintain the lab and equipment in a safe and organized manner including the handling of hazardous or dangerous materials and equipment as required for some labs.

Read and understand technical manuals and protocols.

Assist students in the use of lab equipment and lab procedures.

Listen actively and effectively, identify and solve problems, and facilitate problem solving.

Operate office equipment including computers and supporting word processing, database management, and desktop publishing applications as well as specialized software packages/applications for printed circuit board design.

Adapt to changing technologies and learn functionality of new equipment and systems.

Perform general clerical tasks.

Train and supervise student and/or other temporary help.

Work independently and collaboratively.

Plan and organize work to meet changing priorities and deadlines.



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Perform routine record keeping and report writing duties.
Learn and apply applicable federal, state, and local laws, codes, and regulations as well as administrative and departmental policies and procedures.
Communicate clearly and concisely, both orally and in writing.
Establish and maintain effective working relationships with those contacted in the course of work.

Education and Experience Guidelines - *Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. Examples of ways to obtain the knowledge and abilities would be:*

Education/Training:

Equivalent to the completion of the twelfth grade supplemented by college level coursework or specialized training in electronics, mechanics and/or computer control or a closely related field.

Experience:

One year of experience in electronics, mechanics and computer control environment.

License or Certificate:

Possession of, or ability to obtain, an appropriate, valid driver's license.

Possession of, or ability to obtain, a Hazardous Materials Awareness Training Card.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT - *The conditions herein 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 job functions.*

Environment: Work is performed primarily indoors in a classroom/laboratory setting; exposure to dusts, mists, fumes, wet/damp surfaces, extremes of heat or cold, moderately high levels of noise, chemicals and caustics; work with laboratory equipment and apparatus. Moderate exposure to risks controlled by safety precautions.

Physical: Primary functions require sufficient physical ability and mobility to work in an education center/classroom/laboratory and office setting; to stand or sit for prolonged periods of time; to occasionally walk, stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate laboratory and office equipment requiring repetitive hand movement and fine coordination including use of a computer keyboard; to verbally communicate to exchange information; and requires the wearing of personal protective equipment including safety glasses or goggles, lab coats, rubber or plastic gloves, respirators, or face shields.

Vision: See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment.

Hearing: Hear in the normal audio range with or without correction.