

SIMULATION LABORATORY SPECIALIST

DEFINITION

Under general supervision, performs integration of simulation systems and equipment for registered nursing and other healthcare program laboratories; assists with development of scenario-based instruction; provides technical assistance, support, and training to faculty, staff, and students; provides recommendations to the Health Careers Resource Center (HCRC) team for the evaluation of simulation implementation strategies; and assists the Health Careers Resource Center Director and Coordinator, Health Programs in overseeing the operation of the simulation lab.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Associate Dean, Technology and Health. Exercises no direct supervision of staff. Provides technical and functional direction and training to student workers.

CLASS CHARACTERISTICS

This is a specialized classification responsible for providing systems and equipment management for high fidelity simulations and adapting emerging technologies to meet the educational needs of the Registered Nursing Department and other healthcare program departments. Responsibilities include supporting the technological aspects of realistic, highly complex clinical scenarios, using sophisticated equipment and software. Assists and supports faculty in operating clinical simulation that meets curriculum goals and produces measurable outcomes. Maintains and repairs complex high and low fidelity simulation equipment, as well as the identification and troubleshooting of problems with the equipment, in collaboration with the equipment manufacturer. Ensures the appropriate video recording and playback equipment is available and operational for debriefing after simulations. Ensures that the Simulation Laboratory has required equipment and supplies to meet faculty and student needs for objectives and content for courses that use high fidelity simulation and standardized patients.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

1. Maintains, troubleshoots, and repairs complex high and low fidelity clinical simulators.
2. Programs software to model simulators physiological responses in complex scenarios developed with faculty and the Health Careers Resource Center.
3. Researches and adapts emerging technologies to meet the educational needs of students and faculty.
4. Supports the technological aspects of realistic, highly complex scenarios using sophisticated hardware and software.
5. Assists faculty with high fidelity simulations.
6. Ensures that the instructional media equipment such as video cameras, multimedia computer systems, and audio and video distribution systems are appropriate and functional at all times.
7. Works with Coordinator, Health Programs to maintain equipment and supplies from vendors that are needed for high and low fidelity simulations.
8. Attends seminars, conferences, in-service trainings, and meetings to maintain currency with simulation scenarios, technology, and their use.
9. Maintains current knowledge of simulation equipment and operation manuals.
10. Assists with training faculty and staff in the use of high and low fidelity equipment.
11. Maintains a safe and secure learning laboratory environment.
12. Maintains inventory of supplies and equipment; makes recommendations for budgeting and purchase of equipment, supplies, and materials.
13. Participates in public relations duties including tours and demonstrations in the simulation area.
14. Provides training and direction to student workers in the simulation area.

15. Serves as the liaison with the equipment manufacturers as it relates to simulation.
16. Programs software to model simulators' physiological responses to instructor specifications.
17. Collaborates with faculty in the use of simulation.
18. Coordinates work with the Health Careers Resource Center Director to develop and implement a simulation evaluation program.
19. Provides input on simulation program policies and procedures.
20. Serves as a resource for faculty utilizing simulation.
21. Performs other related duties as assigned.

QUALIFICATIONS

Knowledge of:

1. Operational characteristics of simulation laboratory apparatus, equipment, and materials.
2. Advanced theories and applications of simulation technology.
3. Advanced principles and practices of laboratory operations.
4. Anatomy and physiology.
5. Operational characteristics of audiovisual equipment and tools.
6. Operational characteristics of electromechanical and pneumatic equipment and devices.
7. Parts, tools, equipment, and methods used in the diagnosis, installation, and maintenance of computer hardware and software.
8. Basic medical terminology and abbreviations.
9. Operational characteristics of ancillary equipment and machines related to simulation.
10. Methods, materials, practices, and tools used in equipment maintenance and repair for simulation equipment.
11. Principles and procedures of record keeping and filing.
12. Modern office clerical support practices and procedures, including the use of standard office and computer equipment.
13. Computer applications related to the work, including word processing, database, scanning, and spreadsheet applications.
14. Occupational hazards and standard safety practices.
15. Techniques for providing a high level of customer service by effectively dealing with the public, vendors, students, and College staff, including individuals of various ages, disabilities, various socio-economic, and ethnic groups.

Skills and Abilities to:

1. Perform complex technical work in an instructional learning environment for a highly technical or complex subject area.
2. Correctly and efficiently set up laboratory equipment and materials used in exercises and experiments.
3. Analyze, troubleshoot, and apply problem-solving skills to technical problems.
4. Operate and demonstrate the proper use of specialized simulation equipment, supplies, and materials.
5. Safely and effectively, maintain and repair a variety of simulation equipment. Operate, understand the mechanical function of and perform maintenance and repairs on simulation laboratory equipment.
6. Properly store and dispose of hazardous chemicals and materials.
7. Troubleshoot and repair electronic and mechanical equipment.
8. Maintain current knowledge of simulation technology.
9. Ensure adherence to safe work practices and procedures.
10. Participate in budget preparation and administration.
11. Maintain an adequate inventory of materials for instructional programs.
12. Organize and prioritize a variety of multiple tasks in an effective and timely manner.

13. Operate and maintain modern office equipment, including computer equipment and specialized software applications programs.
14. Understand and follow oral and written instructions.
15. Use English effectively to communicate in person, over the telephone, and in writing.
16. Understand scope of authority in making independent decisions.
17. Review situations accurately and determine appropriate course of action using judgment according to established policies and procedures.
18. Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience, which would provide the required knowledge, skills, and abilities, is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to an Associate's degree from a regionally accredited college in electronics, computer technology, or related field, and three (3) years of experience in computer use, set up, troubleshooting, and maintenance repair of technology equipment, simulators, and mannequins.

Licenses and Certifications:

The incumbent may periodically be required to travel to a variety of locations. If operating a vehicle, employees must have the ability to secure and maintain a valid California driver's license.

Preferred Qualifications:

1. Recent experience in computer use, set up, troubleshooting, and maintenance repair of technology equipment, simulators, and mannequins within the last five (5) years.
2. Certification in Simulation Technology.

PHYSICAL DEMANDS

Must possess mobility to work in a laboratory/classroom environment and in the field; strength, stamina, and mobility to perform medium to heavy physical work, to operate varied lab tools, instruments, and equipment; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate above-mentioned equipment. Positions in this classification bend, stoop, kneel, reach, and climb to perform work. Incumbents must possess the ability to lift, carry, push, and pull materials and objects, typically weighing up to 50 pounds, and occasionally heavier weights with the use of proper equipment. May require the wearing of safety goggles, lab coat, rubber or plastic gloves, and face shields.

ENVIRONMENTAL ELEMENTS

Incumbents work in a laboratory/classroom and in the field and may be exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, dust, fumes, and allergens, hazardous physical substances, mechanical and electrical hazards, and moving equipment. Incumbents may interact with staff and/or students in interpreting and enforcing departmental policies and procedures.