

## SCIENTIFIC PHOTOGRAPHER

### NATURE OF WORK

This is advanced skilled technical work in varied phases of scientific photography.

Work involves operating cameras and other photographic equipment in making clear and effective photographs and microphotographs of specimens required for technical use in research and education. Duties include the application of specialized knowledge to scientific fields in the taking of pictures and instructing faculty and students in photographic methods. Work includes processing of colour and black and white film and taking motion pictures. Work is performed in accordance with general instructions of persons requesting work but employees of this class develop their own methods and procedures. Work is performed under the general direction of the department head or his delegate and is reviewed by observation of results obtained.

### ILLUSTRATIVE EXAMPLES OF WORK

Operates a variety of cameras including videotape recorders and other photographic equipment to provide illustrative and visual evidence for scientific publications, records, research and teaching purposes.

Performs general and specialized scientific photography in studios or on location; takes still and motion pictures of rock and coral samples, gross and minute specimens, plant and animal tissues and procedures and apparatus, illustrations, drawings and other scientific experiments involving laboratories.

Uses special techniques such as time lapse, high speed, aerial and underwater pictures and ultraviolet or infrared light to produce visible records of normally invisible phenomena; designs special equipment and processing formulae.

Provides instructional assistance to students and faculty in the operation and utilization of photographic equipment; demonstrates correct procedures in the developing of the various types of film and the interpretation of satellite photographs.

Prepares chemicals for processing photosensitive materials to make transparencies, lantern slides, photomontages, colour prints and enlargements using projection techniques.

Makes copies of various types of photographic prints with enlargers and printers.

Edits, titles and splices film; makes colour and black and white slides; maintains file of negatives and other records.

Maintains all equipment; requisitions materials, supplies and equipment.

May develop new methods for the presentation of scientific data.

Performs related work as required.

### **REQUIREMENTS OF WORK**

Considerable experience in general and scientific photography; graduation with a degree from a four-year college or university with major course work in photography including courses in the sciences, and preferably supplemented by the successful completion of an approved course of study qualifying for certification as a Biological Photographer; or any equivalent combination of experience and training which provides the following knowledge, abilities and skills:

Considerable knowledge of the principles, methods, practices, equipment and materials of modern photography including still, motion, colour, black and white, scientific, aerial and underwater photography.

Considerable knowledge of the physical properties of various types of film and the suitability of each for various kinds of photography.

Knowledge of the operation of video tape recorders.

Some knowledge of the physiological structure of plants and animals and the chemical composition of minerals.

Some knowledge of instructional techniques.

Ability to take a variety of still and motion pictures.

Ability to understand and follow oral and written instructions.

Ability to plan special photographic features for research purposes.

Ability to establish and maintain effective working relationships with faculty, students and other employees.

Skill in the use, care and demonstration of photographic equipment.

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