

**LABORATORY INSTRUCTOR****NATURE OF WORK**

This is responsible work in the performance of teaching and related duties in undergraduate laboratory programs.

Employees of this class are responsible for teaching laboratory sections, instructing students in equipment operation and laboratory techniques, preparing audiovisual aids, conducting tutorials and example classes, evaluating student performance in laboratories or tutorials, providing information on students to faculty members, and devising, invigilating and marking examinations. Work also involves the development of new laboratory exercises, demonstrations, resource materials and manuals; the advising of students; the evaluating of teaching methods and concepts; participating in research programs and supervising and evaluating student research. Work of this class differs from that of an Instructional Assistant in the requirement for a higher degree of involvement in laboratory content and presentation. Supervision may be exercised over Instructional Assistants and demonstrators. Work is performed under the general direction of a faculty member, but extensive opportunity is allowed for independence in selecting, adopting and presenting laboratory exercises and in making judgments related to the subject matter. Work is reviewed through written reports, discussions and assessment of results obtained.

**ILLUSTRATIVE EXAMPLES OF WORK**

Confers with faculty members to discuss educational needs for the laboratory programs; develops new experiments for new and existing courses; installs quality standards and quality control to ensure accuracy of test results.

Provides instruction on laboratory topics during assigned sessions; outlines theoretical background, methodology and, where applicable, safety considerations associated with the practical exercises; observes and evaluates student performance; reviews and discusses with faculty members student progress and problems encountered.

Participates in the analyses and evaluation of teaching methods and policies with the view to constantly update techniques and improve standards; assists faculty members by presenting tutorials and example classes.

Reads and studies professional literature and reports to keep abreast of new developments in the area of assignment.

Attends some staff meetings and faculty meetings; prepares periodic or special reports on laboratory activities.

May assist or collaborate in conducting research investigations.

Performs related work as required.

## **REQUIREMENTS OF WORK**

Considerable experience in conducting a laboratory in the area of assignment; completion of most college level work equivalent to a master's degree with major course work in the field of assignment; or any equivalent combination of experience and training which provides the following knowledge, abilities and skills:

Considerable knowledge of the subject matter of the area of assignment.

Considerable knowledge of the principles, methods, equipment and techniques used in laboratory work.

Considerable knowledge of the operations and maintenance of laboratories.

Knowledge of instructional techniques and grading systems.

Ability to evaluate and analyze laboratory techniques and procedures, and to devise new testing procedures.

Ability to prepare written laboratory instructions.

Ability to establish and maintain appropriate records and to make written or oral reports.

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

**3106**

**1985.06.12**

**Confirmed: 2004.01.05**