PROGRAMMER CONSULTANT

NATURE OF WORK

This is senior level professional work in providing computer consultation to faculty, staff and students.

Employees in this class confer with faculty, staff and students to identify computer program problems or requirements for computer programs, and to propose and/or implement solutions to these problems. Work also involves designing, developing and documenting of computer programs for use in research, teaching and/or administrative systems, implementing computer software packages and programs obtained from external sources for use by faculty, staff and students, providing assistance in the use of such programs and preparing and conducting short courses and seminars on topics of interest to computer users. Work is normally received in the form of verbal requests for consultation and programming indicating the nature of the problem to be solved, however, in some cases, detailed programs specifications may be provided. Work is performed under general supervision and is evaluated by results obtained.

ILLUSTRATIVE EXAMPLES OF WORK

Provides consultation to faculty, staff and students with respect to program design and debugging, programming techniques, use of standard programs/packages and other services and products offered by the Department.

Designs, develops, documents and implements programs in a manner which ensures that the requirements are met as efficiently as possible.

Prepares schedules and cost estimates for single programs and/or a related series of programs.

Maintains and documents existing programs as required.

Implements packages and programs, documenting, modifying and/or converting as necessary for use on various types of computer equipment.

Prepares papers, articles and memos discussing products, services, facilities and programming techniques.

Corresponds with suppliers of programs and packages regarding selection, acquisition and problem solving and assists in the evaluation of such products.

Reads and studies professional literature and reports on computer technology to keep abreast of new technology and to maintain a working knowledge of the programs, packages and services offered by the Department.

Performs related work as required.

REQUIREMENTS OF WORK

Considerable experience in the design and development of computer programs; graduation from a four-year college or university with major course work in computer science; or any equivalent combination of experience and training which provides the following knowledge, abilities and skills:

Considerable knowledge of the applicability of data processing to a variety of situations and processes.

Considerable knowledge of higher mathematics and the basic principles of the field of research in which assigned.

Considerable knowledge of the limitations, capabilities, uses and service requirements of electronic computer and allied equipment.

Considerable knowledge of electronic data processing coding practices necessary for programming instructions for an electronic computer and peripheral equipment.

Considerable knowledge of machine language programming.

Knowledge of block diagramming, flow charting and procedural report presentation.

Ability to analyze and interpret complex problems in the areas of research, teaching and administrative systems and propose viable solutions.

Ability to write efficient program code to address complex requirements using a variety of computer resources and languages.

Ability to organize work independently and to complete assignments in accordance with general industry standards.

Ability to impart information and express ideas effectively, both orally and in writing.

Ability to deal with clients in co-operative, courteous and professional manner.

Skill in the use of a variety of data processing equipment.

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