State of Wisconsin
Classification Specification

INFORMATION SYSTEMS PROFESSIONAL- IN TRAINING
INFORMATION SYSTEMS PROFESSIONAL- IN TRAINING CONFIDENTIAL
CLASSIFICATION SERIES

I. INTRODUCTION

A. <u>Purpose of This Classification Specification</u>

This classification specification is the basic authority under Wis. Admin. Code ER 2.04 for making classification decisions relative to present and future positions, which are in an intensive training program in order to qualify the individual for reclassification or appointment to a position performing professional duties for the majority of time related to one or more of the classifications within the IS Professional occupational area. This classification series is not intended to be used for objective level positions. There are two classification levels within this one classification specification. Each represents a stage of development within a comprehensive training program.

Classification decisions must be based on the "best fit" of the duties within the existing classification structure. The "best fit" is determined by the majority (i.e., more than 50%) of the work assigned to and performed by the position when compared to the class concepts and definition of this specification or through other methods of position analysis. Position analysis defines the nature and character of the work through the use of any or all of the following: definition statements; listing of areas of specialization; representative examples of work performed; allocation patterns of representative positions; job evaluation guide charts, standards or factors; statements of inclusion and exclusion; licensure or certification requirements; and other such information necessary to facilitate the assignment of positions to the appropriate classification.

B. <u>How to Use This Classification Specification</u>

This classification specification is intended to be used only for those positions specifically including in a formalized intensive training program intended to qualify the individual for reclassification or appointment to an entry level professional Information Systems (IS) classification such as Information Systems (S) Applications Programmer - Entry or Information Systems (S) Systems Analyst/Designer. Level A within the classification series is intended to include those employees who enter into IS training with little or no professional level knowledges or skills in informational technology and require intensive structured training. Level B is intended to include those employees who (1) have completed a training program at level A on basic information technology principles and are ready to master more "advanced basics" or (2) those employees who already possess some limited knowledges or skills in information technology, but require additional structured training in order to qualify for reclassification or appointment to entry level professional information systems positions.

C. <u>Inclusions</u>

This specification encompasses Information Systems - In Training and Information Systems-In Training Confidential positions located within State of Wisconsin agencies, District or Regional Offices of agencies, Boards and Institutions and University of Wisconsin Campuses, which are under intensive training leading to actual or potential appointment to professional level IS positions. In order for a position to be classified as "confidential" it must meet the definition found in s. 111.81 (7), Wis. Stats., as administered and interpreted by the Wisconsin Employment Relations Commission.

D. <u>Exclusions</u>

Excluded from this series are the following types of positions:

1. Supervisor positions as defined in Wis. Stats. 111.81(19), and as administered and interpreted by the Wisconsin Employment Relations Commission.

2. Positions which are not engaged for the majority of time in structured training programs leading to appointment or qualification for appointment to a position performing "professional employee" work as defined in Wis. Stats. 111.81(15)(a) or (b), and as administered and interpreted by the Wisconsin Employment Relations Commission.

3. Clerical, paraprofessional or professional positions which utilize computer systems in a specialized program or reporting area and which are concerned with the manipulation of data contained in the system, and with responsibilities including program policy development and/or implementation, inputting of data into the system, correcting or modifying data, generating program reports and statistics, evaluating the effectiveness of the system, and providing information and technical assistance to users of the program system and liaison with IS professional staff. The primary purpose of these positions is not the development or maintenance of the computer system.

4. Technical positions which spend the majority of time (more than 50%) engaged in any combination of the following activities: operating and monitoring a computer and/or teleprocessing network; routine computer programming and debugging; controlling data by coordinating and executing computerized system production runs; operating peripheral equipment; installing, maintaining, repairing and servicing computer hardware; installing software and upgrades and assisting with troubleshooting software and hardware problems; providing routine technical assistance; performing technical related work in the day-to-day maintenance of the LAN or WAN; completing data processing production for major, complex, integrated systems; or providing first level technical problem determination and resolution, and related job duties.

5. All other positions which are more appropriately identified by other classification specifications.

E. Entrance Into and Progression Through This Series

Employees enter positions within this classification series by competitive examination. Competitive examination may include transfer or demotion for employees seeking to make a career change into the professional information systems occupational area. Progression from the "A" level to the "B" level will occur through reclassification.

F. Definition of Information Systems Terms

To assist in the evaluation of positions for inclusion in this and other Information Systems classifications, definitions of IS related terms are provided in a document titled "Information Systems/Technology Definitions." This document should be used with the classification specifications which have Information Systems or Information Technology as part of the class title.

G. Illustrations of Professional Level Structured Training Topics

Depending on the training program content and the intended terminal position, the employee may be given structured training in some or all of the topics listed below. The list is intended to be illustrative of the kind and nature of training leading to professional entry level appointment and is not all inclusive.

General Information Systems, Information Technology or Data Processing Concepts including (1) *Introductory IT Concepts* such as terminology, hardware and software, fundamentals of computing; computer program development; microcomputers; computers and large scale info systems, etc., (2) *Programming Methodology and Concepts* such as structured programming; problems analysis planning; coding, debugging and testing; relational modeling, design and terminology; computer machine language, object oriented development concepts, etc., or (3) *Numerical Methods* such as functions, linear algebraic equations, differential equations, discrete functions, interpolation, least squares, Boolean algebra, logic analysis and design.

Data Processing Tools, Techniques, Processes and Theories including (1) *Applications Development Techniques* such as analysis and design methods in sequential, batch-random and on-line random access processes; input document design, report & screen design, file maintenance, table access, retrieval & reporting, codes, controls; variable length records, modular decomposition of logical procedure, system tests, documentation, security, conversion and implemental tasks, use of CASE tools, data modeling, process modeling, etc., (2) *Computer Languages* such as COBAL, FORTRAN, C++, Visual BASIC, etc., (3) *Computer Architecture* such as hardware organization, operating systems principles & structures; compilers; parallel & distributed computing; data communications; data storage & management, data center security, contingency planning, etc., (4) *Software Design* such as software engineering; data abstraction in design; data structures - multidimensional arrays, stacks, queues, linked lists, storing, searching, databases; software testing strategies; simulations, etc., (5) *Database Management Systems (DBMS)* such as software concepts and principles, facilities & application of database management systems and 4th generation programming languages; data design, management of data resources, etc., (6) *Teleprocessing* such as interactive programming languages and techniques involving inquiry, data entry, file maintenance and menu processes; interactive program languages, etc., (7) *Communications and Networking* such as software protocols, networking options, LAN and WAN, connectivity issues, backup & recovery topologies, hubs, routers, etc., (8) *Systems Programming* such as operating systems concepts, performance modeling and analysis, etc., (9) *Client/Server* such as administration, development & tools, security, recovery planning, middleware languages, etc., (10) *Microcomputer Systems and User Support* such as microcomputer software, operating systems, programming in machine language, graphics, peripherals, networks, installation, debugging and tuning, telecommunications, etc., (11) *Systems Planning & Acquisition* such as hardware and software selection, networking software and salient factors in selection & support, interfacing software packages, communications programs, macro & script languages, etc., and (12) *Applica-tions Development Methodologies* such as concepts and models on systems development lifecycle, information engineering, business process engineering, productivity tools, etc.

II. DEFINITIONS

IS PROFESSIONAL - IN TRAINING - A

Positions at this level work under VERY CLOSE supervision in a structured environment to learn fundamental IS concepts, principles and practices. They will acquire skills and knowledge about the procedures, practices, techniques and technology for the assigned information systems area(s). Classroom training may be part of the structured environment with corresponding assignments that must be completed. Employees are typically assigned tutors to review work and provide assistance as needed.

IS PROFESSIONAL - IN TRAINING - B

Positions at this level work under VERY CLOSE progressing to CLOSE supervision. The employee continues to develop knowledge of the specialized IS area(s) and the associated IS concepts, principles, practices and techniques. Work is more varied in nature than at the In Training - A level and the knowledges and skills learned would be of a more advanced nature. Movement to this level from the In Training - A level will be based on the successful acquisition of fundamental IS concepts, principles and practices.

III. QUALIFICATIONS

The qualifications required for these positions will be determined at the time of recruitment. Such determinations will be made based on an analysis of the nature and level of the coursework included in the In-Training Program and by an identification of the education, training, work, or other life experience which would provide reasonable assurance that the knowledge and skills required upon appointment to this trainee level class(s) have been acquired.

IV. ADMINISTRATIVE INFORMATION

These classifications were created as a result of the Information Systems Survey and the abolishment of the Management Information Specialist 1 through 7 series effective March 30, 1997. These classification plan changes were announced in Bulletin CC/SC-64. This classification series is intended to provide a form of recruitment options otherwise lost with the abolishment of the Management Information Specialist 1 and 2 levels. The series was modified effective August 2, 1998, by the creation of a "confidential" classification at the "B" level. This was announced in Bulletin CC/SC-90.

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