



## **JOB FAMILY CONCEPT**

This family consists of five levels of Information Systems Professional work – Working Professional through Supervisor/Expert. Levels are distinguished based on the complexity and scope of responsibilities, the degree of specialization and the degree of independent functioning. This job family is distinguished from the technical job family by responsibility for designing and implementing new services. The professional job family addresses responsibility for the following functions:

- Planning
- Analysis
- Programming
- Database Administration
- Communications
- Research
- Security
- Engineering

Incumbents may perform one or more of these functions in support of a wide range of diverse and complex information systems needs and environments.

This family provides professional expertise and consulting to apply the tools of information technology across multiple platforms and disciplines. This job family covers a broad range of information technology expertise including the following:

- Support for research, teaching, administrative, and student activities and for technology evaluation, integration, testing, training, and documentation.
- Consulting on applications and functional interfaces among multiple software systems for a broad range of administrative functions and/or academic disciplines.
- Assisting the campus community in accessing campus and/or departmental computing resources and Internet resources.
- Planning for integration and development of computing resources and advising individuals and departments on software applications and the interaction of various systems on all computing platforms.
- Developing long range strategic plans for computing and networking information technologies.



## **TYPICAL FUNCTIONS**

***[Note: A single position may involve one or more the functions listed, and may include functions not listed.]***

- Create and maintain user-oriented applications; prepare application requirements definitions and design specifications.
- Develop, test and implement applications according to published standards and methodologies, including application security and disaster recovery measures.
- Plan, coordinate and implement security measures to safeguard information in computer files against accidental or unauthorized modification, destruction or disclosure. Regulate access to computer data files, monitor data file use and update security files.
- Administer, monitor and/or modify automated IS software, applications and/or interfaces.
- Design, test and implement hardware platforms and operating systems networks.
- Analyze, document, install, develop and maintain operating system software.
- Consistent with the basic function of this job family, perform technical information systems tasks requiring expertise and/or specialized knowledge in both information systems and a non-information systems technical or scientific discipline. Perform detailed analysis and interpretation of technical problems requiring specialized knowledge and skills in a scientific discipline; apply subject matter expertise unique to the discipline.
- Design, implement and maintain database management systems that support information management applications. Establish and enforce database standards and integrity controls, analyze information requirements, and develop database specifications.
- Plan, design, develop and implement information systems in a relational database, client/server, multi-platform environment.
- Design and engineer network installations to support a communications network (voice, data, video).
- Develop and maintain advanced networking/engineering functions that support LAN's.
- Design and implement network architectures and analyze/resolve complex problems in a WAN system.



- Serves as an expert advisor for a major system, network, operation or project. As expert advisor, consults with and advises unit/project staff of complex problems, innovative approaches and new technology.
- Serve as unit or project leader, directing and reviewing activities of project group members.
- Supervises a unit or work group. Develops annual employee work plans; coordinates staff training. Recommends hiring, evaluates performance, provides staff feedback and initiates corrective action when necessary.

## **COMPETENCY DESCRIPTORS**

### ***Knowledge, Skills and Abilities***

Demonstrated professional knowledge/expertise in functional area(s) for the individual position (e.g. planning, analysis, programming, database administration, research/scientific subject matter specialty, communications, security, engineering). Knowledge/expertise is commensurate with assigned level.

Demonstrated technical skills/knowledge, applicable to specific position functions. May include skills/knowledge in a scientific discipline. Skills/knowledge are commensurate with assigned level.

For lead/supervisor positions, requires demonstrated advanced skill and ability to train and direct staff in assigned functional area(s).

For expert resource/advisor level, demonstrated thorough knowledge and expertise required at the level in order to address issues/problems in complex and sophisticated systems and functional areas. Expertise is commensurate with assigned specialty area(s).

Current knowledge of information technologies including hardware and software, network configuration, system administration, database development and administration, data and network security, programming, and system analysis and integration.

### ***Education and Experience***

A combination of formal education, training and experience commensurate with the requirements and the assigned level, demonstrating the theoretical and applied knowledge, skills and abilities required to perform the primary functions of the position.



## LEVEL DESCRIPTORS

The primary distinction between levels is reflected in the Level Descriptors. As levels increase, scope, complexity and degree of independence increase. Higher levels may perform duties of lower levels. Education and experience are stated at the minimum threshold for the level. Additional education or experience may be desirable for some positions.

### Level 1

**PCLS: 02041**

**Grade 78  
Non-Exempt**

Positions at this level perform tasks requiring the application of information technology concepts and principles, generally in support of non-critical systems. Tasks tend to be recurring, defined in scope and are accomplished following the theory, guidelines, work methods and procedures associated with the IS profession. Work is performed under general supervision with clearly defined policy and organizational structure limiting the decision-making. Non-routine problems/issues are referred to a higher level. Priorities are set by others and work is oriented toward both productivity and skill development. Completed assignments are reviewed for conformance with timelines, standards and policies/procedures. Level 1 positions generally require work experience acquired in an entry-level position or an applicable formal educational setting.

### Level 2

**PCLS: 02042**

**Grade 79  
Non-Exempt**

Positions at this level use problem solving and analysis to resolve standard\* software and hardware problems and issues. Assignments and tasks require a broad level of knowledge of systems or networks. Work is performed under intermittent supervision. Within guidelines, incumbents organize, prioritize and implement their own work activities. Work is periodically reviewed to verify compliance with policies, procedures and standards. Decision making authority is limited to choosing from established methods or procedures. Guidance is provided in new or unusual situations; complex problems are referred to a higher level. Work may involve application of knowledge of a scientific discipline. May lead\*\* a small project or work group incidental to the work of the position.

\* Standard: May require the incumbent to research an issue involving multiple components or systems to determine and resolve a problem.

### Level 3

**PCLS: 02043**

**Grade 81  
Exempt**

Positions at this level are independently responsible for projects, problem identification and problem resolution within assigned area of responsibility. Work requires substantive knowledge of policies, standards and the computing environment. Work is performed under administrative supervision. Tasks generally have no defined processes for problem resolution. Requires



considerable analysis of conflicting issues for major/critical programming or system problem resolutions. Work methods and decisions are independently reached and involve a combination of pre-defined directions and innovative approaches. Complex problems are resolved through consultation with a higher level. May involve application of advanced knowledge of a scientific discipline. May lead\*\* or supervise\*\*\* as a secondary function.

**Level 4**  
**PCLS: 02044**

**Grade 82**  
**Exempt**

Positions at this level independently evaluate and meet complex system, application, project or operational needs in assigned area of responsibility. Work is performed under general direction. Work requires advanced technical knowledge and a thorough understanding of the computing environment and customer needs. Projects typically impact critical systems, major work groups or multiple functional areas, integrate new technology, and/or change how the mission is accomplished. Research and analysis may result in focusing on one or two infrastructure functions (e.g. software, hardware, data management, communications, networks). May serve as a team or project leader\*\* or lead a work group. May supervise \*\*\* a small unit.

**Level 5**  
**PCLS: 02045**

**Grade 83**  
**Exempt**

Work is performed under long-range administrative direction. Positions at this level evaluate and meet large-scale, high risk/high impact, or mission-critical system needs, requiring expert-level specialized knowledge and skills. Incumbents possess highly specialized, technical knowledge and apply a global understanding of the computing environment and client needs to resolve highly complex problems or large-scale system projects/needs. Projects have significantly high impact and often integrate new technology and change operations. Has substantial supervisory\*\*\* responsibility (e.g. for a major unit or large work group), or is recognized as the expert resource/advisor for a major systems area.

\*\* Lead: Provide day-to-day guidance, training and direction for staff in addition to other duties. Regularly assign and review work. Is fluent in assigned area of responsibility.

\*\*\* Supervise: Hire, train, evaluate performance and initiate corrective action.