JOB FAMILY CONCEPT

This family consists of six 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. Positions in Information Systems job families are responsible for following procedures, protocols, processes and regulations set forth in University of Alaska Board of Regents Policy and Regulation (02.07 – Information Resources).   This job family is distinguished from the technical job family by the primary responsibility for designing and implementing new services, the requirement for professional preparation, and the application of theoretical knowledge.   It is distinguished from the IS Manager family by the absence of the primary responsibility for managing a unit or other unit supervisors. The professional job family addresses responsibility for the following Information Systems functions:

- Planning
- Analysis
- Programming
- Communications
- Research
- Project Lifecycles
- 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.
- Consult on applications and functional interfaces among multiple software systems for a broad range of administrative functions and/or academic disciplines.
- Assist the campus community in accessing campus and/or departmental computing resources and Internet resources.
- Plan for integration and development of computing resources and advise individuals and departments on software applications and the interaction of various systems on all computing platforms.
- Develop long range strategic plans for computing and networking information technologies.

TYPICAL FUNCTIONS

The typical functions listed are typical examples of work performed by positions in this job classification. Not all functions assigned to every position are included, nor is it expected that all positions will be assigned every typical function.

- Consistent with the basic function of this job family, perform technical tasks, detailed analyses, and interpretation of technical problems requiring expertise and/or specialized knowledge in a scientific discipline; apply subject matter expertise unique to the discipline.
- Prepare business requirements, create and maintain user-oriented applications and design specifications.
- Develop, test, document and implement applications according to published standards and methodologies.
- Plan, coordinate and implement security measures to safeguard information resources against accidental or unauthorized modification, destruction or disclosure. Provision access to computer data files, monitor data file use and update security files.
- Administer, monitor and/or modify software.
- Test and implement technology infrastructure.
- Analyze, document, install, develop and maintain software.
- Design, implement and maintain databases. Establish and enforce database standards and integrity controls, analyze information requirements, and develop database specifications.
- Design and engineer networks to support communications (voice, data, and/or video).
- Develop and support networking.
- Maintain technical currency.
- Serve as a technology advisor.
- Serve as unit or project leader, directing and reviewing activities of project group members.
- Supervise a unit or work group. Develop annual employee work plans; coordinate staff training. Recommend hiring, evaluate performance, provide staff feedback, and initiate corrective action when necessary.
- Facilitate alignment of information technology services to serve University and departmental missions, goals or priorities as designated by the organization.

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 1A   **Grade 78**
PCLS: 02051   **Non-Exempt**

Descriptors
Work is performed under general supervision and is fairly constrained in scope and routine in nature. Decision making is limited with clearly defined policy and organizational structure. Non-routine problems/issues are referred to a higher level. Priorities are set by others and work is oriented toward productivity and skill development. Completed assignments are reviewed for conformance with timelines, standards and policies/procedures. 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 this job family.

Knowledge, Skills and Abilities
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. Knowledge of relevant functional area(s) (e.g. planning, analysis, programming, database administration, research/scientific subject matter specialty, communications, security, or engineering). Ability to analyze a routine situation and formulate problem resolutions.

Education and Experience
Bachelor's degree in a relevant field (i.e. Information Technology or other related field) and 6 months experience, or an equivalent combination of training and experience.

Level 2A   **Grade 79**
PCLS: 02052   **Non-Exempt**

Descriptors
Work is performed under intermittent supervision. Position requires broad understanding of technologies and strategies where problems often require considerable analysis to resolve. 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. Make recommendations for

improvements to supervisor where appropriate. Positions at this level use problem solving and analysis to resolve standard software and hardware problems and issues, which may require

researching issues involving multiple components or systems to determine and solve problems. Assignments and tasks require a broad level of knowledge of systems or networks. 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.

Knowledge, Skills and Abilities
Same as level one, plus: Knowledge of multiple systems and ability to understand how systems relate to one another. Knowledge of, and ability to combine inter-relationships between disparate problems and formulate situations. Ability to formulate problem resolution. Ability to analyze unusual, non-routine or complex situations and problems and devise alternate strategies for solutions. Ability to lead**.

Education and Experience
Bachelor's degree in a relevant field (i.e. Information Technology or other related field) and 2 years experience, or an equivalent combination of training and experience.

Level 3A   **Grade 80**
PCLS: 02053   **Exempt**
***Alternate PCLS: 09470

Descriptors
Work is performed under administrative supervision. May lead** a small team or small workgroup. Positions usually serve as expert advisors in specialized technology areas, and focus on achieving and delivering results. Work on projects which are moderate to large in complexity* as a team member or project lead. Analyze the potential causes of software and service problems. Devise testing and coordinate quality assurance activities. Assist with translating requirements into use case scenarios and functional specifications. Develop innovative solutions to complex* problems. Provide extensive operations support, storage management, and problem resolution for one or more operating systems platforms. Document plans for project implementation and testing. Identify areas for improvement. Implement decisions that have a significant impact on the department, MAU and University, and may redefine operations.

Knowledge, Skills and Abilities
Same as level two, plus: Advanced knowledge of a specialized area. Advanced knowledge of managing enterprise level technology. Ability to understand needs of end users. Ability to deliver results for the organization. Ability to articulate software architectures and to capture and possibly redefine business requirements.   Ability to guide and mentor peers on tasks related to their area of expertise. Ability to make decisions on matters of significance and implement these decisions on behalf of the University.

Education and Experience
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Bachelor's degree in a relevant field (i.e. Information Technology or other related field) and 3 years experience, or an equivalent combination of training and experience.

Level 4A   **Grade 81**
PCLS: 02054   **Exempt**
***Alternate PCLS: 09471

Descriptors
Work is performed under general direction. 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. Analyze and interpret University mission, goals, and policies and make decisions responsive to those directions. Complex problems are resolved through consultation with a higher level. 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. Serve as the expert resource for a specialized functional area and/or a project manager. May involve application of advanced knowledge of a scientific discipline. May supervise** as a secondary function.

Knowledge, Skills and Abilities
Same as level three, plus: Advanced 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. Expert level knowledge of relevant functional area(s) (e.g. planning, analysis, programming, database administration, research/scientific subject matter specialty, communications, security, or engineering). Advanced knowledge of policies, standards and the computing environment. Project management skills. Ability to supervise**. Ability to extrapolate abstract business problems into a successful targeted architecture benefiting UA.

Education and Experience
Bachelor's degree in a relevant field (i.e. Information Technology or other related field) and 4 years progressively responsible experience, or an equivalent combination of training and experience.

Level 5A   **Grade 82**
PCLS: 02055   **Exempt**

Descriptors
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. Positions at this level independently evaluate and meet complex system, application, project or operational needs in assigned area of responsibility. Research and analysis may result in focusing on one or two infrastructure functions (e.g. software,

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hardware, data management, communications, or networks). Coordinate/communicate activities for critical service lines across a region, typically requiring overseeing the efforts of technical and non-technical team members across multiple organizational boundaries/reporting structures. Analyze information to make decisions which are in line with the strategic direction of the unit, department or MAU. Serves as a team or project leader, or lead** a work group, which is large in complexity and scope, and/or a mission critical unit. May supervise** a small unit, but not as the primary focus of the position.

Knowledge, Skills and Abilities
Same as level four, plus: Knowledge of critical systems. Expert level and/or advanced technical knowledge of a relevant specialty area. Ability to bridge non-IT aspects of an organization with its IT aspects. Ability to understand organizational issues which have far-reaching implications. Ability to successfully resolve conflicting issues.

Education and Experience
Master's degree in a relevant field (i.e. Information Technology or other related field) and 4 years progressively responsible experience, or an equivalent combination of training and experience.

Level 6A   **Grade 83**
PCLS: 02056   **Exempt**

Descriptors
Work is performed under long-range administrative direction. 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. 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. 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 an expert resource/advisor who makes decisions that have system-wide impact.

Knowledge, Skills and Abilities
Same as level five, plus: Expert knowledge of major systems area. Knowledge of new and/or emerging technologies. Ability to serve as expert resource/advisor. Ability to motivate employees and work teams. Ability to understand high risk, large scale systems which may have a large impact and may be highly complex. Ability to influence others. Ability to provide and successfully implement plans to change operations.

Education and Experience
Master's degree in a relevant field (i.e. Information Technology or other related field) and 6 years progressively responsible experience, or an equivalent combination of training and experience.

*   **Complexity**: Complexity increases as projects impact more users, critical systems, major workgroups, multiple functional areas, multiple departments, the MAU or the system. Complexity also increases as projects change how the mission is accomplished, integrate new technology, change operations, are more high risk or have higher impact. Complexity also increases as projects require more innovative approaches to solve non-routine problems. Complexity increases as expert level, highly specialized, or scientific knowledge is required. Complexity also increases as policies and standards for operation are more diverse.

*   **Scope**: Refers to the impact the program, project or task has on the unit/department, MAU or system.

**   **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.

***   Exemption status determined on a case-by-case basis. Essential functions of each job will be reviewed and evaluated in accordance with Fair Labor Standards Act regulations.

[2013 revisions included formatting document for consistency, adding a new level, renumbering levels, and implementing suggestions submitted by work team committee. Revisions were also posted for employee review and comment.]