

Job Family	Information Technology	Job Summary	Involved in the development of server / OS / desktop / mobile applications and services including researching, designing, developing specifications for designing, writing, modifying, testing, debugging, troubleshooting and maintaining source code. Also having direct or related involvement in designing related databases, user interfaces, integration to other systems / applications, content or multimedia processes. Work includes analysis and design to post-production processes, quality assurance, maintenance and documentation.		
Job Function	Applications Programming				
Category	Professional				

Job Level	Entry	Intermediate	Experienced	Advanced	Expert
Job Title	Applications Programmer 1	Applications Programmer 2	Applications Programmer 3	Applications Programmer 4	Applications Programmer 5
Job Code	7298	7299	7300	0652	0653
Tracking Code	A0415	A0416	A0417	A0418	A0419
Per. Program	PSS	PSS	PSS	MSP	MSP
FLSA	Non-Exempt	Non-Exempt	Exempt	Exempt	Exempt
Generic Scope	Entry-level professional with limited prior experience; learns to use professional concepts to resolve problems of limited scope and complexity; works on assignments that are initially routine in nature, requiring limited judgment and decision making. Employees at this level are expected to acquire the skills and knowledge to perform more advanced work following an agreed upon time in position, through defined training and development planning.	Professional who applies acquired job skills, policies, and procedures to complete substantive assignments / projects / tasks of moderate scope and complexity; exercises judgment within defined guidelines and practices to determine appropriate action.	Experienced professional who knows how to apply theory and put it into practice with in-depth understanding of the professional field; independently performs the full range of responsibilities within the function; possesses broad job knowledge; analyzes problems / issues of diverse scope and determines solutions.	Technical leader with a high degree of knowledge in the overall field and recognized expertise in specific areas; problem-solving frequently requires analysis of unique issues / problems without precedent and / or structure. May manage programs that include formulating strategies and administering policies, processes, and resources; functions with a high degree of autonomy.	Recognized organization-wide expert. Has significant impact and influence on organizational policy and program development. Regularly leads projects of critical importance to the organization; these projects carry substantial consequences of success or failure. Directs programs with organization-wide impact (or may have impact beyond the University) that include formulating strategies and administering policies, processes, and resources. Significant barriers to entry exist at this level.
Custom Scope	Under direct supervision applies professional software concepts and department / unit and campus, medical center or Office of the President policies and procedures to small projects or portions of projects. Resolves routine programming problems. Works on issues and projects of limited scope. Follows standard programming procedures to analyze situations and data from which answers can be readily obtained.	Applies professional programming concepts for small to medium-sized projects or portions of larger projects. Resolves a variety of programming design and implementation issues. Works on programming assignments of moderate scope where analysis of situations or data requires a review of a variety of factors.	Applies skills as a seasoned, experienced software professional with a full understanding of industry practices, community standards and relevant policies and procedures to medium-sized projects or portions of large projects with moderate scope and complexity. Resolves a wide range of issues. Demonstrates competency in selecting tools, methods and techniques to obtain results.	Applies advanced software concepts and objectives to medium to large projects of broad scope and complexity. Regularly resolves highly complex issues where analysis of situations or data requires an in-depth evaluation of variable factors. Selects tools, methods, techniques and evaluation criteria to obtain results.	Having wide-ranging experience, applies software concepts and objectives to projects, up to and including the most complex , with campus-wide / medical center, institution-wide and / or multi-institutional scope and little or no precedent . Directs the selection of tools, methods, techniques, technologies and evaluation criteria to obtain results. Internal and external contacts often pertain to campus / medical center and systemwide plans and objectives. Is considered a subject matter expert at the campus, medical center or Office of the President and may be recognized as an expert in the

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					industry.
Key Resp 01	Performs basic design, development, modification and debugging of software. Evaluates basic software for functional areas. Analyzes existing software or works to formulate logic for basic systems, prepares basic specifications and performs coding.	Plans, designs, develops, modifies, debugs and evaluates moderately complex software for functional areas. Analyzes existing software or works to formulate logic for moderately complex new systems and devises moderately complex algorithms. Performs data analysis and tests / debugs software. Designs and applies basic data sources. Applies effective programming security practices.	Plans, designs, develop, modify, debugs, deploys and evaluates complex software for functional areas. Analyzes existing software or works to formulate logic for new complex systems and devises complex algorithms. Performs complex data analysis and tests / debugs complex software. Analyzes the design and use of complex data sources. Applies moderately complex programming security practices.	Applies advanced software concepts to plan, design, develop, modify, debug, deploy and evaluate highly complex software for functional areas. Analyzes existing highly complex software or works to formulate logic and devises algorithms for new highly complex software systems. Performs highly complex data analysis and tests / debugs highly complex software, working directly with management. Initiates , analyzes, designs and applies highly complex data sources. Applies and enforces complex programming security practices.	Performs software techniques, up to and including the most complex and advanced . Plans, designs, develops, modifies, deploys and evaluates software systems that are highly complex and have broad, campuswide / medical center, institution-wide and / or multi-institutional impact. Regularly leads analysis of existing software or works to formulate logic and devises algorithms for new systems, up to and including the most complex . Initiates, develops, designs and applies data sources, up to and including the most complex . Applies and enforces highly complex programming security practices.
Key Resp 02	Executes simple test plans, develops conversion and system implementation plans and implements unit tests. Applies the basics of source code control techniques and configuration management.	Executes test plans. Develops conversion and system implementation plans and regularly creates and executes unit tests. Employs source code control techniques. Assists with successful configuration management.	Negotiates, develops and executes moderately complex test plans. Develops conversion and system implementation plans. Trains users in conversion and implementation of system. Performs complex data modeling, performance and integration testing and builds interfaces for a variety of internal and external constituents. Monitors and employs source code control techniques and configuration management.	Specifies , develops and executes complex test plans. Develops conversion and system implementation plans. Performs or directs highly complex data modeling, performance and integration testing and builds interfaces. Determines source code control techniques and configuration management design and changes.	Directs , develops and executes highly complex test plans. Directs conversion and system implementation plans.
Key Resp 03	Prepares system and programming documentation, works to software specifications and reports progress.	Gathers and analyzes data to prepare system and programming documentation. Assists with implementation of changes in development, maintenance and system standards and in the creation of software specifications. Regularly	Gathers, analyzes, prepares and summarizes recommendations for approval of system and programming documentation. Recommends and implements changes in development, maintenance and system standards. Negotiates with stakeholders on the	Prepares and approves or obtains approval for system and programming documentation. Initiates and oversees changes in development, maintenance and system standards. Sets the technical requirements for complex software specifications.	Directs and approves system and programming documentation. Directs, analyzes and prepares recommended changes in development, maintenance and system standards having critical, campuswide, medical center and / or institution-wide impact .

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		reports progress on projects.	creation of software specifications. Ensures project reports are made.		
Key Resp 04			Understands and applies industry practices, community standards and department policies and procedures relating to work assignments. Interacts with senior level internal personnel. May serve as technical lead for a software development project of moderate scope . Trains users in conversion and implementation of systems. Negotiates project plans with stakeholders.	Understands and applies industry practices, community standards and department policies and procedures in depth. May serve as technical lead for multiple software development projects of moderate to broad scope. May lead a team of software development professionals. Enforces project plans.	Independently determines methods and procedures on new assignments. Leads a team of software development professionals. Interacts with all levels of internal personnel. Overall responsibility for quality of software or systems and relationships to other software products.
Key Resp 05					
Key Resp 06					
Key Resp 07					
Key Resp 08					
Key Resp 09					
Key Resp 10					
Key Resp 11					
Key Resp 12					
Key Resp 13					
Key Resp 14					
Key Resp 15					
Education 1	Bachelor's degree in related area and / or equivalent experience / training.	Bachelor's degree in related area and / or equivalent experience / training.	Bachelor's degree in related area and / or equivalent experience / training.	Bachelor's degree in related area and / or equivalent experience / training.	Bachelor's degree in related area and / or equivalent experience / training.
Education 2					
Education 3					
Education 4					
License 1					
License 2					
License 3					

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License 4					
Cert 1					
Cert 2					
Cert 3					
Cert 4					
Spec Cond 1	Must pass a background check.	Must pass a background check.	Must pass a background check.	Must pass a background check.	Must pass a background check.
Spec Cond 2					
Spec Cond 3					
Spec Cond 4					
KSA 01	Knowledge relating to the design development, modification and implementation of software including object-oriented programming concepts.	Knowledge of secure software development.	Intermediate knowledge of secure software development.	Advanced knowledge of secure software development.	Expert knowledge of secure software development.
KSA 02	Demonstrated effective communication and interpersonal skills.	Intermediate skills associated with the design, development, modification and deployment of software, including object-oriented programming concepts.	Advanced skills associated with software design, modification, implementation and deployment, including object-oriented programming concepts.	Highly advanced skills associated with software specification, design, modification, implementation and deployment of large-scale scope.	Expert skills associated with software design, development and deployment of diverse and complex software of campuswide / medical center, institution-wide and/or multi-institutional scope.
KSA 03	Demonstrated ability to communicate technical information to technical and non-technical personnel at various levels in the organization.	Knowledge of other IT related areas.	Demonstrated ability to understand functional needs and how systems can support those needs. Demonstrated ability to develop conversion and system implementation plans.	Excellent project leadership and management skills.	Demonstrated ability to code software of high complexity / derive algorithms on technical platforms.
KSA 04	Self-motivated and works independently and as part of a team. Able to learn effectively and meet deadlines.	Demonstrated software repository skills.	Demonstrated ability to interface with management on a regular basis.	Demonstrated ability to understand functional needs and how systems can support those needs. Demonstrated ability to develop conversion and system implementation plans.	Demonstrated ability to engage in performance / integration testing, business and technical analysis, data analysis and data modeling of high complexity .
KSA 05		Experience with common programming tools.	Demonstrated ability to contribute technical narrative to grant proposals.	Advanced experience with identification and use of code libraries and open-source forums.	Expert skills and experience in recommending changes development, maintenance and software standards and processes.
KSA 06		Demonstrated ability to follow software specifications.	Thorough experience with identification and use of code libraries	Advanced experience with planning for deployment and creation of feedback	Demonstrated ability to effectively communicate with executive-level

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			and open-source forums.	mechanisms.	management on a regular basis.
KSA 07		Demonstrated effective communication and interpersonal skills.	Experience with planning for deployment and creation of feedback mechanisms.	Demonstrated software repository skills.	Experienced mentor and leader of software development teams.
KSA 08		Demonstrated ability to communicate technical information to technical and non-technical personnel at various levels in the organization.	Demonstrated software repository skills. Demonstrated testing and test planning skills.	Experience developing and executing complex test plans.	Demonstrated ability to understand functional needs and how systems can support those needs. Demonstrated ability to develop conversion and system implementation plans.
KSA 09		Self-motivated and works independently and as part of a team. Able to learn effectively and meet deadlines.	Thorough experience with common programming tools. Demonstrated ability to follow software specifications.	Demonstrated effective communication and interpersonal skills. Demonstrated ability to communicate technical information to technical and non-technical personnel at various levels in the organization.	Expert experience with identification and use of code libraries and open-source forums.
KSA 10		Demonstrated problem-solving skills.	Demonstrated effective communication and interpersonal skills.	Self-motivated and works independently and as part of a team. Able to learn effectively and meet deadlines.	Experience with planning for deployment and creation of feedback mechanisms. Demonstrated software repository skills.
KSA 11			Demonstrated ability to communicate technical information to technical and non-technical personnel at various levels in the organization.	Demonstrated complex problem-solving skills.	Demonstrated effective communication and interpersonal skills. Demonstrated ability to communicate technical information to technical and non-technical personnel at various levels in the organization.
KSA 12			Self-motivated and works independently and as part of a team. Able to learn effectively and meet deadlines.		Self-motivated and works independently and as part of a team. Able to learn effectively and meet deadlines.
KSA 13			Demonstrated broad problem solving skills.		Demonstrated complex problem-solving skills.
KSA 14					
KSA 15					
Environment	Campus, medical center or other university setting and various external venues.	Campus, medical center or other university setting and various external venues.	Campus, medical center or other university setting and various external venues.	Campus, medical center or other university setting and various external venues.	Campus, medical center or other university setting and various external venues.

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Career Path 1	Applications Programmer 2	Applications Programmer 3	Applications Programmer 4	Applications Programmer 5	Applications Programming Mgr 1
Career Path 2					Systems Administration Mgr 1
Career Path 3					Business Sys Analysis Mgr 1
Career Path 4					Technical Project Mgr 1
Career Path 5					
Career Path 6					