|  |  |  |
| --- | --- | --- |
| **GENERAL DESCRIPTION OF WORK** | | |
| Positions in this banded class are responsible for specialized work in creating, implementing and maintaining technical application solutions or applying appropriate technology to projects of a broad organizational scope (e.g., large/complex department, college, university-wide, agency wide, or statewide). Projects solutions may be in the area of business, research and/or instructional applications. Positions research technological changes to determine the impact and integration with existing standards and architecture of applications. Assesses customer needs and develops technical solutions, especially as these solutions involve integration of multiple systems and applications. Serves as a resource to other applications development staff in the organization. | | |
| **CONTRIBUTING** | | |
| **Functional Competency** | **Examples of Work** | **Competencies** |
| **Technical Knowledge** | Sufficient knowledge of specific computer environments and a broad range of programming languages with ability to learn emerging programming languages. Programs complex routines.  Uses detail understanding of technical issues and theories to provide direction for analyst level staff. Follows appropriate security protocols for systems utilized.  Sufficient knowledge of principles and concepts behind applications analysis, design analysis, project planning, resource estimates, thorough testing and debugging, implementation and documentation.  Provides technical leadership to application programmers and other technical staff involved in implementation and integration projects across campus IT Services. | Experienced technical resource. Typically has significant expertise and experience.  Sufficient knowledge to provide system administration duties, system analysis and programming, and basic knowledge of relational databases and business enterprise systems.  Sufficient knowledge of departmental operating systems and systems hardware utilized across the organization. Understands the scope of work to be completed to include  business process, data flow, system resources and campus system services. |
| **Technical Solution**  **Development** | Plan, design and coordinate technical solutions with team members and clients for moderate and complex problems.  Devises or modifies procedures to solve moderate to complex problems considering computer equipment capacity and limitations.  Write professional, clear, concise and complete applications and systems documentation for technical and non-technical users.  Developing and maintaining application and enterprise systems to include conducting analysis of business processes and functions, developing system and program requirements, developing specifications, and testing and implementing them in collaboration with clients and technical staff. | Ability to apply standard and nonstandard technology applications and explores and adapts changing technologies.  Ability to work independently and apply judgment to technical work assignments to achieve desired outcomes. |
| **Technical Support** | Provides support to technical and non-technical users.  Assists functional users in analyzing their problems, workflows and processes and offers appropriate recommendations. Serves as a key resource in solving problems of medium to high level complexity by providing guidance in design and | Ability to provide guidance to other analysts in solving problems of medium to high complexity.  Ability to independently resolve non-routine problems. |

|  |  |  |  |
| --- | --- | --- | --- |
|  | development.  Recommends methods of resolving problems to lower level analysts or client representatives.  Work with technical and non-technical staff to identify information systems and reporting needs, identifying potential solutions, designing, developing, documenting, testing and maintaining those IT services. |  | |
| **Planning and Organizing** | Evaluate and assess departmental needs and recommend improvements to current systems or processes to management.  Translates operational requirements into technical designs and systems solutions and documents procedures for technical and non-technical users. | Ability to assist management in establishing work standards, standard processes and references.  Significant knowledge of departmental needs to evaluate and assess and recommend to/or assist management on developing improvements/automation to current systems or processes. | |
| **Project Management** | Plans and manages projects of medium complexity while guiding and providing the direction of projects through completion.  Develops project plan, manages milestones and drives project forward. Accountable for keeping project on track.  Anticipates project problems and leads collaboration to avoid or manage problems. | Ability to plan and manage the integration and implementation of new technology, solving highly technical and complex problems while guiding and providing the direction for projects through completion  Ability to delegate tasks to Analysts and Technicians when necessary | |
| **Consultation** | Works with technical, non-technical staff and senior administrators to develop operational strategies and implement and provide custom solutions. Consults with senior level decision-makers to discuss alternative technical solutions. | Ability to communicate effectively to provides consultation on issues and requests from clients.  Ability to analyze client needs and translate technology initiatives back to them. | |
| **JOURNEY** | | | |
| **Functional Competency** | **Examples of Work** | | **Competencies** |
| **Technical Knowledge** | Frequently works at the highest technical level of applications systems analysis and programming. Uses detailed understanding of technical issues to design architecture for stable technologies.  A demonstrated technical understanding of the business process mandated by administrative applications and their interfacing software and systems. | | Substantial knowledge to provide system administration duties, system analysis and programming, and extensive knowledge of relational databases and business enterprise systems.  Substantial knowledge of specific computer environments and a broad range of programming languages with ability to learn emerging programming languages. |

|  |  |  |
| --- | --- | --- |
|  | . | Substantial knowledge of principles and concepts behind applications analysis, design analysis, project planning, resource estimates, thorough testing and debugging, implementation and documentation.  Extensive knowledge of departmental operating systems and systems hardware utilized across the organization. |
| **Technical Solution**  **Development** | Plan, design and coordinate technical solutions with team members and clients for complex problems.  Develop and maintain software solutions to include conducting analysis, developing system and program requirements, document specifications, testing and implementation. Serves as a resource to other members of technical team.  Create and maintain programming documents using required methodologies to aid in technical support of systems for which responsible.  Regularly provides guidance and suggestions to less experienced analysts/programmers. | Knowledge and ability to devise or modify procedures to solve complex problems considering computer equipment capacity and limitations.  Ability to investigate, research and implement new technologies in specialty or related area. |
| **Technical Support** | Regularly provide direct technical support to assist functional users in analyzing their problems, workflows, and processes and offer appropriate recommendations.  Serves as a key resource in solving problems of high level complexity by providing guidance in design and development and systems analysis.  . | Extensive knowledge to serve as a technical resource in solving problems of high complexity. |
| **Planning and Organizing** | Develop, design and support applications for business, research and instructional functions of the organization.  Establish a course of action to accomplish a specific goal as well as plan proper assignments and/or appropriate allocation of resources for others.  Works with large sophisticated applications along with managing application system implementation projects.  Responsible for meeting with management to define and design applications to meet the automation requirements of the entire organization. | Ability to plan and organize day-to-day work of others. Ability to reorganizes work assignments of other employees and adapt their workload, if necessary to unanticipated changes. |
| **Project Management** | Functions as the top-level technical contributor in one or more of the most highly specialized phases of applications systems analysis and programming.  Leads complex projects involving multiple staff across multiple specialty areas across the organization.  Functions as the project lead of major modifications and enhancements to existing | Ability to plan and manage the integration and implementation of new technology, solving highly technical and complex problems while guiding and providing the direction for projects through completion |

|  |  |  |
| --- | --- | --- |
|  | applications as well as development of new applications which include ensuring a stable design, and assisting in the analysis and programming associated with the development of these complex administrative applications using a variety of development tools.  Develop and modify enterprise wide processes and ensure the systems are monitored to assure integrity of data relative to all related areas. | Ability to lead complex projects involving multiple staff across specialty areas.  Ability to independently manages project timelines, resources, staff and leads implementation efforts. |
| **Consultation** | Consult with senior level administrators on an on-going basis to develop long range strategic alternatives.  Consult with non-technical users and consult with functional departments and extract what is needed to assess problems and recommend solutions.  Offer alternatives and suggestions for the best fit of the solutions that are being used. | Understands the market, industry and competitors that have an impact on the customer's business.  Strong communication skills to interact with operations team members, production, support, implementation, infrastructure, and development teams.  Ability to develop long-range strategic alternatives and build client support of organization’s objectives. |
| **ADVANCED** | | |
| **Functional Competency** | **Examples of Work** | **Competencies** |
| **Technical Knowledge** | Works at the highest technical level of applications systems analysis and programming. Top level technical expert in highly specialized area of applications systems analysis and programming.  Designs architecture for new or emerging technologies.  Provides direction to technical staff related that is related totechnical, substantive, and methodological issues and theories for applications development.  . | Extensive knowledge to provide system administration duties, system analysis and programming, and extensive knowledge of relational databases and business enterprise systems. Extensive knowledge of departmental operating systems and systems hardware utilized across the organization.  Extensive knowledge of specific computer environments and a broad range of programming languages with ability to learn emerging programming languages.  A demonstrated technical understanding of the business process mandated by administrative applications and their interfacing software and systems.  Extensive knowledge of principles and concepts behind applications analysis, design analysis, project planning, resource estimates, thorough testing and debugging, implementation and documentation. |
| **Technical Solution** | Produce comprehensive technical, user and operations documentation. | Demonstrates substantial knowledge of other work specialties |

|  |  |  |
| --- | --- | --- |
| **Development** | Provides technical leadership on complex projects.  Integrate with project teams to deliver solutions against time and budget objectives. Cooperate with agency leadership to provide benefits realization evaluations against  project and business case objectives.  Develops highly complex information technology systems. Recommends information technology solutions of a complex nature. | with the ability to integrate this knowledge base to achieve solutions to problems of high complexity. |
| **Technical Support** | Plans, installs, and configures a variety of business enterprise wide systems at the highest level within the organization.  Develops solutions that impact multiple customers/applications or are used at the enterprise level including statewide architecture. | Extensive knowledge to serve as a technical resource in solving problems of high complexity. |
| **Planning and Organizing** | Represent team leadership for advanced application development and technology services for the department.  Performs the most complex analytical and programming activities associated with the development of new systems or special assignments requiring the highest level of analytical and programming knowledge and skills.  Plan, develop, enhance and oversee the most technically complex computer applications. | Ability to lead a team in long-term planning for the work unit.  Ability to react to and reorganize work assignments of other employees and adapt their workload, if necessary to unanticipated changes. |
| **Project Management** | Manages complex projects that have high impact. Projects often involve significant changes to infrastructure or involve the implementation of emerging technologies. Ensures that complex projects are explained using a graphical format for increased understanding, e.g., entity-relational diagrams. Use industry-standard diagrams and processes in creating database documentation. Ensures that project outlines, vision statements, and code comments within project documentation are included in the project scope. | Ability to function as the top-level technical contributor in one or more of the most highly specialized phases of applications systems analysis and programming. |
| **Consultation** | Provide consultation to other applications analyst programmers, project leaders, and managers.  Provides database consulting for new development and application purchases to help guide the technical/development and functional teams.  Acts as an active participant in providing advanced consulting skills to committees and other leaders and technical analyst/specialist within the organization. | Understands the market and industry that have an impact on the state's technological business.  Ability to provide expertise and consulting to committees, boards and lower level technical analyst/specialist. |

**MINIMUM EDUCATION AND EXPERIENCE REQUIREMENTS**

• Bachelor's degree in Computer Science, Computer Information Systems, Computer Engineering, Math, or Engineering or related technical degree from an appropriately accredited institution and two years of experience in business application consulting or development; or

• Bachelor's degree with some computer coursework from an appropriately accredited institution and three years of experience in business applications consulting or development; or

• Associate's degree in computer programming and three years of experience in application consulting or development; or an equivalent combination of education and experience

• Journey level requires an additional one year of experience.

• Advanced level requires an additional two years of experience.

**SPECIAL NOTE**

This is a generalized representation of positions in this class and is not intended to identify essential work functions per ADA. Examples of competencies are primarily those of the majority of positions in this class, but may not be applicable to all positions. Ability to create and maintain collegial working relationships with customers and co-workers, contribute to a positive and inclusive work environment, and serve as a productive team member is expected in all positions.