

OCCUPATIONAL GROUP: Information Technology

CLASS FAMILY: Business Applications

CLASS FAMILY DESCRIPTION:

This family of positions includes those that create, modify, and test applications; provide business analysis on systems and hardware/software; provide production processing; serve as a technology relationship manager providing technology service to agencies to identify, address and implement information technology requirements, expectations and strategic plans. These positions provide work at the statewide or agency level.

CLASS TITLE: Business Applications Technical Associate

DISTINGUISHING CHARACTERISTICS:

These positions, under general supervision, perform full-performance level para-technical work in monitoring and controlling the production of data processing jobs through the various stages of completion. They may identify and resolve hardware and software errors and perform routine hardware maintenance. These positions do not have supervisory or budgetary responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Identifies production problems by reviewing condition codes which cause job aborts.
- Edits and modifies control language to ensure proper production runs; initiates production reruns, when necessary.
- Analyzes and assists in resolving operational problems, notifying users of the problems and/or the corrections.
- Maintains logs of equipment failures, tapes used and a daily balance of output totals; makes arrangements for the repair of hardware.
- Codes and enters data into control language stream using terminal and makes inquiries on computer to determine the status of a job.
- Uses utilities and keys in utility languages to produce reports and to merge, sort, catalog, and un-catalog files as required.
- Receives calls from agency personnel pertaining to problems with data processing equipment.
- Installs and replaces data processing equipment and teleprocessing cables.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of data processing procedures and equipment involved in producing a job run.
- Knowledge of control languages, error and system condition codes, related reports and printouts.
- Knowledge of methods used to correct job production problems.
- Knowledge of documentation techniques used for completing reports.
- Ability to understand technical manuals and apply the methods to correct job production problems.
- Ability to schedule production time based on user needs and production backlog.
- Ability to establish and maintain effective working relationships with user community and agency data processing personnel.

MINIMUM QUALIFICATIONS:

Education: An Associate's Degree related to Information Technology from a regionally accredited college or university.

Experience: No experience required.

Education and/or Experience Substitution: One to three years of full-time or equivalent part-time verifiable work experience related to Business Applications may be substituted for the required education on a year-for-year basis.

Certifications, Licenses, Registrations: None.

CLASS TITLE: Business Applications Specialist 1

DISTINGUISHING CHARACTERISTICS:

These positions, under general supervision, perform entry level work in information technology business consulting or business analyzing to define business process requirements and to conceptualize automated solutions. Work may involve; researching hardware/software capabilities and compatibility with user computer environment on various platforms to facilitate goals and meet information and automation needs of agency users. These positions may assist higher level specialists in systems analysis of larger, more complex systems and research hardware/software capabilities and compatibilities for various platforms. These positions do not have supervisory or budgetary responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Consults with users to determine specific program requirements and the data necessary for production.
- Prepares detailed specifications necessary for programming and systems documentation, as well as justifications and cost assessments.
- Reviews and researches hardware/software and information technology related requests.

- Outlines the scope of the project for the user agency, prepares project estimate for review by supervisor.
- Trains users on applications and other automation tools.
- Works with WVOT, user agencies and vendors to resolve issues associated with procurement requests.
- Develops and maintains knowledge for several assigned areas of expertise of information systems technology to serve as a resource to WVOT and other state agencies.
- May assist agencies on related procurement processing issues with Purchasing and the Attorney General.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of capabilities and limitations of information technology.
- Knowledge of purchasing practices and procedures.
- Knowledge of agency and enterprise wide information technology systems (WVFIMS, HRIS, TEAM, etc.)
- Knowledge of data processing concepts and equipment usage.
- Ability to evaluate and analyze user requests and develop effective work plans for systems development and maintenance.
- Ability to present ideas in a clear, concise format, creating presentations, reports and spreadsheets.
- Ability to follow complex written and oral instructions.
- Ability to train others on applications and/or tools.
- Ability to develop and maintain effective working relationships.
- Ability to understand complex technical manuals.
- Ability to develop and perform system checks which are sufficient to test the thoroughness and accuracy of programs.
- Ability to analyze and evaluate work environments, information technology systems and information processes.
- Ability to evaluate existing systems of moderate complexity and to understand their structure and component parts.
- Ability to analyze information problems and apply technical information solutions.
- Ability to communicate clearly, both orally and in writing.

MINIMUM QUALIFICATIONS:

Education: An Associate's Degree related to Information Technology from a regionally accredited college or university.

Experience: Two to four years of full-time or equivalent part-time paid verifiable work experience related to Business Applications.

Education and/or Experience Substitution: One to three years of full-time or equivalent part-time verifiable work experience related to Business Applications beyond the required experience may be substituted for the required education on a year-for-year basis.

Certifications, Licenses, Registrations: None

CLASS TITLE: Business Applications Specialist 2

DISTINGUISHING CHARACTERISTICS:

These positions, under general supervision, perform full performance level work in a variety of information technology business consulting or business analyzing to define business process requirements and to conceptualize automated solutions. Work may involve: researching hardware/software capabilities and compatibilities with user computer environments; writing and reviewing complex procurement documents. These positions may serve as lead workers for other professional, paraprofessional and clerical support staff, but typically have no budgetary responsibilities. Perform related work as required.

EXAMPLES OF WORK: (*Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.*)

- Consults with business stakeholders to elicit and define business process requirements and to conceptualize automated solutions for the required business process; develops project scope, elicits business requirements, and facilitates joint application development sessions; develops time frames and cost estimates for proposed projects; writes functional and non-functional business requirements; ensures that requirements are accurately represented in the design and delivery of software products and solutions; tests business solutions to ensure their quality and functionality.
- Ensures all documentation developed is clear and concise and easy to maintain, including specifications, design features, processes, procedures, use cases, test scripts, interfaces, reports training materials and user manuals.
- Plans, directs and coordinates the program area such as telecommunications, analysis, testing and new game development related to telecommunications.
- Participates in translation of business requirements into functional and technical specifications.
- Effects or recommends operational changes to facilitate efficient and effective accomplishment of goals or delivery of service.
- Reviews and researches hardware, software, and information technology related request; check for complete specifications, justification, cost, and the purchasing procedure for processing; research and write technical correspondence and documentation.
- Creates screen mock-ups, and develops test scripts and scenarios; development of testing methodologies and testing plans to perform unit tests, system tests, acceptance testing and regression testing of the automated data systems to ensure the required end result is obtained.
- Reviews and creates Request for Proposal and Request for Quotation documentation for turnkey solutions and for multi-site systems.
- May serve as lead worker
- May develop rules, policies, and standards regarding specific work projects.
- May participate on a committee or works independently for the review and possible selection of necessary infrastructure and software for agency informational needs.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of data base management, documentation and project control techniques.
- Knowledge of data processing concepts and equipment usage.
- Knowledge of basic networking, information processing and telecommunications concepts.
- Knowledge of telecommunications equipment and technologies and be able to interpret them for the best solutions for the agency
- Knowledge of data communications and communication technologies.
- Knowledge of the uses and potentials of modern data processing equipment and their respective advantages and limitations.
- Knowledge of state purchasing rules and guidelines, practices and procedures.
- Knowledge of statistical analysis.
- Knowledge of computer systems.
- Skill to program batch and/or on-line systems.
- Skill in developing reports utilizing specialized tools.
- Ability to analyze and reduce abstract data to logical order.
- Ability to apply applications to solve user problems using electronic data processing.
- Ability to evaluate and analyze user requests and develop effective work plans for systems development and maintenance.
- Ability to present ideas in a clear, concise format using narrative statements and logic diagrams.
- Ability to produce quality and accurate documentation.
- Ability to evaluate and analyze user requests and develop effective work plans for report development and maintenance to meet user requirements.
- Ability to initiate work on projects and independently resolve issues with customers.
- Ability to follow complex written and oral instructions.
- Ability to understand complex technical manuals.
- Ability to develop and perform system checks which are sufficient to test the thoroughness and accuracy of programs.
- Ability to develop and perform report design checks which are sufficient to test the thoroughness and accuracy of the report.
- Ability to clearly report activities and identify potential problem areas such as data integrity.
- Ability to analyze reporting problems and apply technical solutions.
- Ability to compile information and interpret technical information for non-technical staff in a user friendly format.
- Ability to analyze and evaluate work environments, information technology systems and information processes.
- Ability to prepare flow charts, graphs, tables and status reports.
- Ability to communicate clearly, both orally and in writing.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree related to Information Technology from a regionally accredited college or university.

Experience: Three to five years of full-time or part-time equivalent verifiable experience related to Business Applications.

Education and/or Experience Substitution: Two to four years of full-time or equivalent part-time verifiable work experience related to Business Applications beyond the required experience may be substituted for the required education on a year-for-year basis.

Certifications, Licenses, Registrations: None

CLASS TITLE: Business Applications Specialist 3**DISTINGUISHING CHARACTERISTICS:**

These positions, under limited supervision, perform supervisory or technical expert level work. They supervise a staff or perform complex systems and analysis work in the development, implementation, and maintenance of computer applications for state agencies. Supervision or technical consulting at this level requires extensive experience in information systems and agency applications. These positions may initiate and implement new technologies, plan projects, projects time and resource requirements, allocate staff, review progress and oversee information technology procurement. These positions may have budgetary responsibilities. Perform related work as required.

EXAMPLES OF WORK: (Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)

- Directs the design, development and implementation of new computer systems, applications, and benefit delivery methods to include development of equipment specifications, new system evaluation standards and may coordinate the installation of new equipment.
- Supervise professional and technical staff; making assignments and reviewing work and plans of operation.
- Oversees all documentation developed, ensuring it is clear and concise and easy to maintain, including specifications, design features, processes, procedures, use cases, test scripts, interfaces, reports training materials and user manuals.
- Reviews requests from users and perform the required research to determine if resources are available to fulfill the requirements.
- Oversees and participates in translation of business requirements into functional and technical specifications.
- Produces annual/quarterly reports for release to the general public via the agency's website, publications, and other means of distribution.
- Performs research and analysis and technology assessments to ensure the completion and ongoing success of the programs Information Technology projects and applications.

- Develops and implements project communication strategies, overseeing dissemination of project information including objectives, timelines, milestones, project scope changes, regular and special status reports.
- Researches and analyzes legislation, work activities, industry standards or other issues to develop policies, standards and procedures.
- Develop resources for and implementing user training, transition planning, and ongoing systems maintenance and support.
- Plan and formulate design alternatives and solutions for business problems and provide recommendations to upper management staff concerning technology issues, program and policy development, strategic planning, budget preparation, employee training and evaluation, including writing proposals and conducting special projects.
- May write requests for proposals for the purchase/lease of new hardware/software.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of data base management, documentation and project control techniques.
- Knowledge of the computer and personnel resources available, such as hardware configurations and software packages and their applications in a systems environment.
- Knowledge of data processing concepts and equipment usage.
- Skill in programming complex systems and in the use of hardware and software configuration.
- Skill in handling conflicts with customers in a caring and professional manner.
- Ability to plan, assign, and coordinate the activities of staff.
- Ability to evaluate and analyze user requests and develop effective work plans for systems development and maintenance to meet user requirements.
- Ability to present ideas in a clear, concise format using narrative statements and logic diagrams.
- Ability to maintain effective working relationships with data processing personnel and users.
- Ability to understand complex technical manuals. Ability to develop and maintain complex program systems at a level comparable to on-line applications.
- Ability to communicate clearly, both orally and in writing.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree related to Information Technology from a regionally accredited college or university.

Experience: Four to six years of full-time or equivalent part-time verifiable experience related to Business Applications.

Education and/or Experience Substitution: Three to five years of full-time or equivalent part-time verifiable work experience related to Business Applications beyond the required experience may be substituted for the required education on a year-for-year basis.

Certifications, Licenses, Registrations: None

CLASS TITLE: Business Applications Manager

DISTINGUISHING CHARACTERISTICS:

These positions provide daily direction, management and support of an agency IT system that requires agency specific program knowledge. These positions oversee work through subordinate supervisors. These positions would typically be responsible for staying within an assigned budget. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Manages a team of key members consisting of program and technical managers, consultants, and administrative staff.
- Responsible for all aspects of the daily administration, operation and delivery of end-to-end technology system support.
Develop and coordinate the implementation of project plan; participate in setting of project goals and standards; set priorities and allocate resources; monitor system development to ensure initiatives are completed, deadlines are met and quality is assured.
- Provide oversight and coordination of IT project activities through all phases of system development across multiple application platform
Develop strategies for project management; establish, review and improve methodologies.
- Set expectations to ensure contract compliance; track, review and approve contract deliverables for cost and content.
- Provide oversight for unit testing, regression testing, user acceptance testing, work flow, production schedules, staff training, recruitment and retention.
- Provide oversight for unit testing, regression testing, user acceptance testing, work flow, production schedules, staff training, recruitment and retention.
- Assess and determine need for additional or revised resource allocations to meet emerging needs or deadlines.
- Design and develop project tracking mechanisms for effective project and performance monitoring.
- Conduct post implementation evaluations and debriefings.
- Define project scope, goals and deliverables via collaboration with state and vendor management team to ensure reasonable objectives are set.
- Evaluate agency requests and project plans for contract compliance, standards, policies and guidelines.
- Maintain effective communication links with disparate groups of stakeholders to clarify requirements and expectations, and facilitate coordination to resolve barriers to system development; articulate project plans, expectations, and recommendations to Department executives managers and other stakeholders.
- Provide oversight and management of individual project budget; evaluate project needs, processes and proposed solutions for allocation of budgetary resources; monitor and approve cost allocation formula for budgetary compliance; produce financial reports for compliance with federal and state directives

- Coordinate Data Warehouse Reports and Reporting initiatives, including ad hoc reports and ongoing management reports for support of varied agency business initiatives.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of data base management, documentation and project control techniques.
- Knowledge of the computer and personnel resources available; the capabilities of the programming languages, hardware configurations and software packages.
- Knowledge of complex programming systems, software and hardware configuration and their applications in a systems environment.
- Knowledge of data processing concepts and equipment usage.
- Knowledge of the agency specific programs and their State and Federal regulations.
- Skill in programming complex systems and in the use of hardware and software configuration.
- Skill in handling conflicts with customers in a caring and professional manner.
- Skill in problem resolution that permits a factual assessment of situation.
- Ability to plan, assign, and coordinate the activities of other programmer analysts.
- Ability to evaluate and analyze user requests and develop effective work plans for systems development and maintenance to meet user requirements.
- Ability to present ideas in a clear, concise format using narrative statements and logic diagrams.
- Ability to maintain effective working relationships with data processing personnel and users.
- Ability to understand complex technical manuals. Ability to develop and maintain complex program systems at a level comparable to on-line applications.
- Ability to communicate clearly, both orally and in writing.
- Ability to lead subordinates and peers to the completion of short and long term goals.
- Ability to elicit rules and procedures that is a business process and articulate them in concise and descriptive narratives in both oral and written formats.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree related to Information Technology from a regionally accredited college or university.

Experience: Five to seven years of full-time or equivalent part-time verifiable work experience related to Business Applications.

Education and/or Experience Substitution: None

Certifications, Licenses, Registrations: None

CLASS TITLE: Programming Technician

DISTINGUISHING CHARACTERISTICS:

These positions, under general supervision, perform entry level work in computer programming. They perform coding assignments for clearly defined projects with specifications and instructions, and prepare documentation of work produced. These positions do not have supervisory or budgetary responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Receives on-the-job training and acquires knowledge of the function and capabilities of the data processing equipment and the departmental requirements for data processing.
- Reviews program specifications or clearly-defined instructions;
- Codes program into designated computer language; debugs program by desk checking; runs compiler program for diagnostic errors; tests program using test data; corrects logic errors and prepares program documentation.
- Assists more experienced programmers in the development and maintenance of programs.
- Participates in self-study programs and vendor supplied courses.
- Reviews and modifies existing computer programs of limited complexity.
- Performs routine duties such as keying programs, creating or changing job control language, maintaining documentation, up-dating data processing manuals.
- May attend user meetings under the guidance of a programmer specialist.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of computer programming language.
- Knowledge of basic mathematical computations.
- Knowledge of basic data processing concepts and data processing equipment usage.
- Ability to code entry level computer programs.
- Ability to present ideas in a clear, concise format using narrative statements and logic diagrams.
- Ability to maintain effective working relationships with data processing personnel and user agency personnel.
- Ability to understand technical manuals.
- Ability to follow written and oral instructions.

MINIMUM QUALIFICATIONS:

Education: An Associate Degree from an accredited college, university or business school.

Experience: Two to four years of part-time or full-time paid experience in computer programming field.

Education & Experience Substitution: Two years of full-time or equivalent part-time paid computer programming experience in one or more programming or data base languages.

Bachelor's degree from an accredited college or university in computer science or related field.

Certificates, Licenses, Registrations: None

CLASS TITLE: Programming Specialist 1

DISTINGUISHING CHARACTERISTICS:

These positions, under general supervision, perform full performance level computer programming work in the designing and writing of new and/or modifying the existing computer programs. These positions may assist higher level specialists in program analysis of larger, more complex programs, and provide on call programming support to users. These positions do not have supervisory or budgetary responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Writes new programs or modifies existing programs of low to moderate complexity; designs flow charts, reviews logic, codes logic flow into appropriate language, conducts test runs, debugs program from test results and writes documentation.
- Performs routine duties such as coding programs, maintaining program documentation, and updating data processing manuals.
- Assists in the analysis of user work processes and systems to determine feasibility of electronic data processing applications.
- Communicates with users to resolve production problems, define specifications and test results.
- Develops and maintains knowledge for several assigned areas of expertise in programming technology to serve as a resource to WVOT and other state agencies.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of capabilities and limitations of information technology.
- Knowledge of agency and enterprise wide information technology systems (WVFIMS, HRIS, TEAM, etc.)
- Knowledge of a 3rd or 4th generation programming language.
- Ability to develop and maintain complex program systems at a level comparable to on-line applications.
- Ability to evaluate and analyze user requests and develop effective work plans for systems development and maintenance.
- Ability to follow complex written and oral instructions.
- Ability to train others in programming techniques.
- Ability to understand complex technical manuals.
- Ability to develop and perform system checks which are sufficient to test the thoroughness and accuracy of programs.
- Ability to evaluate existing systems of moderate complexity and to understand their structure and component parts.
- Ability to analyze information problems and apply technical information solutions.
- Ability to communicate clearly, both orally and in writing.

MINIMUM QUALIFICATIONS:

Education: An Associate's degree from an accredited college, university or business school

Experience: Two to four years of full-time or equivalent part-time paid computer programming experience in one or more programming or data base languages.

Education & Experience Substitution: Bachelor's degree from an accredited college or university and one year paid experience in a position utilizing information technology writing or research skills

Successful completion of sixty semester hours from an accredited college or university including a minimum of six semester hours in computer science and three years of experience in a position utilizing information technology writing or research skills.

Certificates, Licenses, Registrations: None

CLASS TITLE: Programming Specialist 2

DISTINGUISHING CHARACTERISTICS:

These positions, under general supervision, perform full performance level computer programming work in the designing and writing of new and/or modifying the existing computer programs. Work may involve: writing and reviewing complex major procurement documents; writing complex programs with basic instructions and analyzing programs of moderate complexity. These positions may serve as lead workers for other professional, paraprofessional and clerical support staff, but typically have no budgetary responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Prepares new programs or modifies existing programs, prepares flow charts and reviews logic, codes logic flow into appropriate language, conducts test run, debugs program from test results and prepares documentation; writes a user procedure manual under review; writes program modules for more complex systems.
- Meets with clients to compile requirements for projects; makes recommendations to meet client's project needs.
- Assists end user by responding to reported issues; develops and communicates solutions to the end user community.
- May serve as lead worker
- May develop rules, policies, and standards regarding specific work projects.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of a 3rd or 4th generation programming.
- Knowledge of moderately complex programming systems, software and hardware configuration and their applications in a systems environment.
- Knowledge of basic networking, information processing and telecommunications concepts.
- Knowledge of computer systems.
- Ability to analyze and reduce abstract data to logical order.

- Ability to apply programming applications to solve user problems using electronic data processing.
- Ability to evaluate and analyze user requests and develop effective work plans for systems development and maintenance.
- Ability to present ideas in a clear, concise format using narrative statements and logic diagrams.
- Ability to evaluate and analyze user requests and develop effective work plans for report development and maintenance to meet user requirements.
- Ability to follow complex written and oral instructions.
- Ability to understand complex technical manuals.
- Ability to develop and perform system checks which are sufficient to test the thoroughness and accuracy of programs.
- Ability to develop and perform report design checks which are sufficient to test the thoroughness and accuracy of the report.
- Ability to clearly report activities and identify potential problem areas such as data integrity.
- Ability to analyze reporting problems and apply technical solutions.
- Ability to compile information and interpret technical information for non-technical staff in a user friendly format.
- Ability to analyze and evaluate work environments, information technology systems and information processes.
- Ability to prepare flow charts, graphs, tables and status reports.
- Ability to communicate clearly, both orally and in writing.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree from a regionally accredited four-year college or university.

Experience: One to three years of full-time or part-time equivalent paid experience in Information Technology or telecommunications.

Education & Experience Substitution: An Associate's degree from an accredited college, university or business school in computer science or related field and 5 years of full time or part-time equivalent paid experience in Information Technology or telecommunications.

Certificates, Licenses, Registrations: None

CLASS TITLE: Programming Specialist 3

DISTINGUISHING CHARACTERISTICS:

These positions, under general supervision, perform advanced level systems and analysis work in the development, implementation, and maintenance of computer programs for state agencies, or serve as project team leaders. These positions receive requests for new systems and modifications to existing systems and conduct feasibility studies to estimate the cost and the time needed to fulfill the request. They monitor the cost of each project, analyze, design, develop and implement complex computer systems, such as on-line, multi-program systems. These positions

train and help develop the skills of lower level Programming Specialists and delegate work as project leaders in a large programming shop. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Develops new or modifies existing complex programs, reviews logic, codes logic flow into appropriate language, conducts test run, debugs program from test results and prepares documentation.
- Ensures that programmers and programmer analysts have followed established standards.
- Reviews design documents for clarity, completeness and accuracy; analyzes the facts to determine whether the solutions presented offer the most cost/time effective solution to an agency systems problem.
- Monitors the implementation of accepted documents to ensure the system's arrival and installation.
- Meets with agency personnel to determine functions, goals and systems problems; develops solutions and documents them.
- Trains subordinate programmer analysts in complex programming and analytical techniques.
- Participates in self-study and vendor-supplied courses to improve skills in more complex programming areas.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of data base management, documentation and project control techniques.
- Knowledge of the computer and personnel resources available; the capabilities of the programming languages, hardware configurations and software packages.
- Knowledge of multiple 3rd or 4th generation programming language.
- Knowledge of complex programming systems, software and hardware configuration and their applications in a systems environment.
- Knowledge of data processing concepts and equipment usage.
- Skill in programming complex systems and in the use of hardware and software configuration.
- Ability to evaluate and analyze user requests and develop effective work plans for systems development and maintenance to meet user requirements.
- Ability to give instructions and direct the activities of other programmer analysts; to explain and evaluate the systems proposals.
- Ability to present ideas in a clear, concise format using narrative statements and logic diagrams.
- Ability to maintain effective working relationships with data processing personnel and users.
- Ability to understand complex technical manuals.
- Ability to develop and maintain complex program systems at a level comparable to on-line applications.

- Ability to develop and perform system checks which are sufficient to test the thoroughness and accuracy of programs.
- Ability to communicate clearly, both orally and in writing.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree from a regionally accredited four-year college or university.

Experience: Four years of full-time or equivalent part-time paid experience in programming, system design and analysis work with multiple programming or data base languages.

Education & Experience Substitution: An Associate's degree from an accredited college, university or business school in computer science or related field, and eighteen months of full-time or equivalent part-time paid computer programming experience in one or more programming or data base languages.

Three years of full-time or equivalent part-time paid computer programming experience in one or more programming or data base languages.

Certificates, Licenses, Registrations: None

CLASS TITLE: Programming Specialist 4**DISTINGUISHING CHARACTERISTICS:**

These positions, under limited supervision, perform supervisory or technical expert level work. They supervise a staff of programmer specialists or perform complex systems and analysis work in the development, implementation, and maintenance of computer applications for state agencies. Supervision or technical consulting at this level requires extensive experience in information systems and the agency applications. These positions may plan projects, projects time and resource requirements, allocate staff and review progress. If supervisory, these positions oversee other lower level Programming Specialists. These positions may have budgetary responsibilities. Perform related work as required.

EXAMPLES OF WORK: *(Any specific position in this class may not include all of the duties listed; nor do the examples listed cover all of the duties which may be assigned.)*

- Develops and manages integrated project plans for programs information technology projects to include project charter, scope, Work Breakdown Structure, responsibility for assignments, project schedules, milestones, key staffing requirements, budgets, performance measurement baselines, key risks, risk response plans, management review plans, project execution plan and related management plans.
- Directs the design, development and implementation of new computer systems, applications, and benefit delivery methods to include development of equipment specifications, new system evaluation standards and may coordination of installation of new equipment.
- Provides programming support and performance oversight in the federal/state program's area to ensure that the deliverables and timelines are met.
- Reviews requests from users and perform the required research to determine if resources are available to fulfill the requirements.

- Produces annual/quarterly reports for release to the general public via the agency's website, publications, and other means of distribution.
- Provides programming support and performance oversight in the federal/state program's area to ensure that the deliverables and timelines are met.
- Performs research and analysis and technology assessments to ensure the completion and ongoing success of the programs Information Technology projects and applications.
- Develops and implement project communication strategies, overseeing dissemination of project information including objectives, timelines, milestones, project scope changes, regular and special status reports.
- Researches and analyze legislation, work activities, industry standards or other issues to develop policies, standards and procedures.
- Develops resources for and implementing user training, transition planning, and ongoing systems maintenance and support.
- Plans and formulates design alternatives and solutions for business problems and provide recommendations to upper management staff concerning technology issues, program and policy development, strategic planning, budget preparation, employee training and evaluation, including writing proposals and conducting special projects.
- May supervise professional and technical staff; making assignments and reviewing work and plans of operation.
- May write requests for proposals for the purchase/lease of new hardware/software.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of data base management, documentation and project control techniques.
- Knowledge of the computer and personnel resources available; the capabilities of the programming languages, hardware configurations and software packages.
- Knowledge of multiple 3rd or 4th generation programming language.
- Knowledge of complex programming systems, software and hardware configuration and their applications in a systems environment.
- Knowledge of data processing concepts and equipment usage.
- Skill in programming complex systems and in the use of hardware and software configuration.
- Skill at handling conflicts with customers in a caring and professional manner.
- Ability to plan, assign, and coordinate the activities of other programmer analysts.
- Ability to evaluate and analyze user requests and develop effective work plans for systems development and maintenance to meet user requirements.
- Ability to present ideas in a clear, concise format using narrative statements and logic diagrams.
- Ability to maintain effective working relationships with data processing personnel and users.
- Ability to understand complex technical manuals. Ability to develop and maintain complex program systems at a level comparable to on-line applications.
- Ability to communicate clearly, both orally and in writing.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree from a regionally accredited four-year college or university.

Experience: Six to seven years of full-time or equivalent part-time paid experience in programming, system design and analysis work with multiple programming or data base languages.

Education & Experience Substitution:

An Associate's degree from an accredited college, university or business school in computer science or related field, and eighteen months of full-time or equivalent part-time paid computer programming experience in one or more programming or data base languages.

Three years of full-time or equivalent part-time paid computer programming experience in one or more programming or data base languages.

Certificates, Licenses, Registrations: None

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