<div align="center">

MICHIGAN CIVIL SERVICE COMMISSION
JOB SPECIFICATION

INFORMATION TECHNOLOGY PROGRAMMER/ANALYST

</div>

JOB DESCRIPTION

Employees in this job function as information technology professionals, participating in or overseeing a variety of analytical and programming assignments that provide for the development, enhancement, and maintenance of automated data, voice, or video application programs, application systems, and operating systems software within mainframe, network, and client server environments.

There are two classifications in this job.

Position Code Title - Info Tech Prgmr Analyst-E

Information Technology Programmer/Analyst 9

This is the entry/training level. The employee performs an increasing range of professional assignments in a developing capacity while continuing to learn the methods of the work.

Information Technology Programmer/Analyst P11

The employee performs a range of professional assignments. Independent judgment is required to carry out assignments that have significant impact on services or programs. Guidelines may be available, but require adaptation or interpretation to determine appropriate courses of action.

Position Code Title - Info Tech Prgmr Analyst-A

Information Technology Programmer/Analyst 12

This is the advanced level. The employee may function as a lead or senior worker. At this level, employees are responsible for overseeing the work assignments of other information technology professionals or have regular assignments which have been recognized by Civil Service as having significantly greater complexity than those assigned at the experienced level.

JOB DUTIES

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

Writes, compiles, and modifies applications programs for computerized systems and keys into program code.

Develops or acquires test data and runs tests to determine the accuracy of program logic to produce desired results; debugs and revises programs based on test results.

Uses program specifications to prepare the logic sequence of program source statements in the development, modification, documentation, and maintenance of computer programs.

Develops and prepares documents for the general design of solutions that meet system and security requirements, including the selection of alternative approaches.

Develops applications to be used in client server environments.

Develops and maintains automated data processing systems and computer application programs.

Develops specifications to detail what new systems or enhancements to existing systems can accomplish.

Develops specifications for databases, communication systems, hardware, network, security, storage and software configurations.

Develops operational and installation procedures for communication systems, hardware, network, security, storage and software.

Serves as liaison with users concerning requests, usage, standards, security, and other developmental and production matters.

Develops structured diagrams for the specifications of databases, communication systems, computer or storage area networks, security or network programs.

Develops, compiles, maintains and documents configurations of the following: databases, servers, computers, security and network monitor systems, packaged programs, macros, utilities, and communication systems.

Develops guidelines and upgrade techniques of new operational procedures for the support of databases, hardware systems, operating systems software, network systems software, security and client server systems.

Develops and implements databases, communication systems, storage area networks, security and applications with user departments, vendors, and data centers.

Develops and implements the directory configurations, messaging configurations, and state-wide operating systems which include communication systems (servers, routers, switches and hubs).

Develops the gateways, filters and interfaces related to state-wide messaging and communication systems.

Develops detailed systems operations designs.

Tests programs and systems and integrates system modules.

Converts and implements new systems or upgrades existing systems.

Develops, implements, and monitors information technology quality assurance standards.

Develops cost estimates for systems development and upgrades to existing systems.

Evaluates network services equipment and software for purchase; recommends new configurations, provides training or arranges for vendor training for system users.

Evaluates, implements, and provides customer support for third-party software systems in a client server environment.

Maintains records and prepares reports and correspondence related to the work.

Performs related work as assigned.

Additional Job Duties

Information Technology Programmer/Analyst 12 (Lead Worker)

Oversees the work of professional Information Technology staff by making and reviewing work assignments, establishing priorities, coordinating activities, and resolving related work problems.

Information Technology Programmer/Analyst 12 (Senior Worker)

Performs, on a regular basis, professional Information Technology assignments, which have been recognized by Civil Service as more complex than those assigned at the experienced level.

JOB QUALIFICATIONS

Knowledge, Skills, and Abilities

NOTE: Thorough knowledge in the area listed is required at the advanced level.

Knowledge of programming languages such as C++, Visual Basic, COBOL, and other generative and contemporary languages such as Powerbuilder and Java.

Knowledge of structured programming methodology.

Knowledge of database design methods and support utilities.

Knowledge of personal computers and personal computer software.

Knowledge of file maintenance and report generation methods.

Knowledge of interactive processing and remote printing.

Knowledge of data communication and transaction based processing.

Knowledge of systems development methodology used in the development of new systems enhancements for existing manual or automated data processing systems.

Knowledge of the fundamental concepts and operating principles of data communications and data processing hardware and software.

Knowledge of the fundamental principles, theories, techniques, and methodologies of data processing systems analysis.

Knowledge of computer programming, data modeling, and object-oriented programming procedures and techniques.

Knowledge of application development environments and related tools.

Knowledge of rapid application development tools.

Ability to prepare detailed written instructions and documentation.

Ability to analyze instructions and data.

Ability to convert specifications to computer language.

Ability to gather and analyze facts, define problems, and devise solutions.

Ability to plan and develop basic and detailed mechanical and clerical procedures for use in data processing systems.

Ability to use programming procedures and techniques in the implementation of computer programs.

Ability to effectively make oral and written reports and presentations and prepare clear and concise graphs and charts.

Ability to conduct interviews and establish and maintain effective relationships with systems users.

Ability to maintain records, prepare reports, and conduct correspondence related to the work.

Ability to communicate technical terminology at a level appropriate to the audience.

Additional Knowledge, Skills, and Abilities

Information Technology Programmer/Analyst 12 (Lead Worker)

Ability to organize and coordinate the work of others.

Ability to set priorities and assign work to other professionals.

Working Conditions

None

Physical Requirements

None

Education

Information Technology Programmer/Analyst 9

Possession of an Associate's degree with 16 semester (24 term) credits in one or a combination of the following: computer science, data processing, computer information systems, data communications, networking, systems analysis, computer programming, information assurance, IT project management or mathematics.

Information Technology Programmer/Analyst P11/12

Possession of a Bachelor's degree with 21 semester (32 term) credits in one or a combination of the following: computer science, data processing, computer information systems, data communications, networking, systems analysis, computer programming, information assurance, IT project management or mathematics.

Experience

Information Technology Programmer/Analyst 9

No specific amount or type is required.

Information Technology Programmer/Analyst P11

No specific type or amount is required.

Information Technology Programmer/Analyst 12

Two years of professional experience equivalent to an Information Technology Infrastructure or Programmer/Analyst P11.

Alternate Education and Experience

Information Technology Programmer/Analyst 9

Educational level typically acquired through the completion of high school and two years of experience as an application programmer, computer operator, IT Technician, or two years (4,160 hours) of experience as an Information Technology Student Assistant may be substituted for the education requirement.

Information Technology Programmer/Analyst P11 - 12

Possession of an associate's degree with 16 semester (24 term) credits in computer science, information assurance, data processing, computer information, data communications, networking, systems analysis, computer programming, IT project management, or mathematics and two years of experience as an application programmer, computer operator, or information technology technician; or two years (4,160 hours) of experience as an Information Technology Student Assistant may be substituted for the education requirement.

OR

Educational level typically acquired through completion of high school and four years of experience as an application programmer, computer operator, information technology technician, or four years (8,320 hours) of experience as an Information Technology Student Assistant may be substituted for the education requirement.

Special Requirements, Licenses, and Certifications

Certain positions may require certification in specific information technology programs.

JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION

Job Code	Job Code Description
INFTCHPA	INFORMATION TECHNOLOGY PROGRAMMER/ANALYST

Position Title	Position Code	Pay Schedule
Info Tech Prgmr Analyst-E	ITPRANE	NERE-263
Info Tech Prgmr Analyst-A	ITPRANA	NERE-264
Info Tech Prgmr Analyst-E	ITPRANE	NERE-284

HK

01/15/2017