

**STATE OF OHIO (DAS)**CLASSIFICATION  
SPECIFICATION**CLASSIFICATION SERIES:**

Information Technology

**SERIES NO.:**

6411

**MAJOR AGENCIES:**

All Agencies

**EFFECTIVE DATE:**

05/05/2002

**SERIES PURPOSE:**

The purpose of the information technology occupation is to design, write, analyze and upgrade new and/or modify existing computer programs and/or analyze and design automated information systems in order to support the agency mission for both internal and external customers.

At the three supervisory levels, incumbents supervise lower-level information technology specialists or analysts, and if assigned, also supervise clerical support staff, and/or other lower-level technical staff and/or direct & oversee contract staff. The level of supervisor to be assigned is dependent upon the type of hardware on which the systems and program being designed and/or modified will reside.

**GLOSSARY:** The term below is to be interpreted as follows wherever it appears in the classification specification.

**Advanced (high-level) programming language:** A computer programming language that has syntax and grammar crudely approximating a natural (human) language, such as English, and typically requires translation to a low-level language that a computer can recognize. Software such as crystal report writer, Microsoft FrontPage and the like do not constitute an advanced programming language.

**Enterprise wide:** agency-wide, which includes all decentralized locations (e.g., institutions, district offices and/or regional offices) of the employing agency.

**Open system:** an open system is an open architecture that allows interfaces with different vendor software/hardware. Per the open system interconnection (OSI) reference model, in an open system, the seven layers of separation – hardware, operating system, database, network transfer protocol, network architecture, presentation, and the application – are all separate and interchangeable.

**Programming language:** a unique vocabulary and set of rules for writing computer programs.

**Project management:** a series of steps followed in order to formulate and/or implement project policy to ensure successful project development. The steps include: define the problem (e.g., gather user requirements; meet with stakeholders); develop possible solutions (e.g., facilitate brainstorming sessions; identify resource requirements; develop cost benefit analysis; develop a recommended solution; seek agreement to proceed); develop a project plan (e.g., identify milestones and critical dependencies; gather appropriate resources and secure commitment; finalize funding; encumber funds; build project plan; distribute plan for review) execute the plan (e.g., provide on-going status reports; respond to changes in scope; coordinate deliverables; supervise project staff both assigned and ad hoc; define team members roles and responsibilities; manage team; maintain project schedule; respond to problem); validation and verification (e.g., post project follow up and review; update plan template; hold a lessons learned discussion and documentation session; close out the project). If assigned, responsibility also includes supervising, coordinating and/or managing personnel assigned to one work unit or section or across multiple units or sections and/or contract staff.

**Web architect:** responsibilities include the following: designs and architects internal and external web systems & sites to include all technical aspects of agency's web site and primary/backup servers to include recommending server operating systems, hardware and software requirements and encryption standards for communications to and from servers, and recommending strategies and leading efforts for creating web application links to various data base back ends, works closely with client project managers and technical leaders to understand customers' business objectives and systems requirements, analyzes functional requirements and state-of-the-art, well-integrated and cost-effective web solutions, defines and designs web infrastructure, designs and implements an internet strategy for authorization of users to access controlled components, designs relational data bases to perform well logically and physically for decision support, coordinates enhancements and maintenance of web systems and sites, reviews customer requests for information access and usage, provides technical advice and expertise to information technology professionals in the installation, acceptance testing and evaluation of newly released and beta software, and assists/mentors customers in the design and construction of their web pages.

**Web site administrator:** responsibilities include the following: builds, manages and maintains internet and intranet web servers in designated computing environment, performs technical functions such as performance monitoring and tuning (e.g., identifies and resolves bottlenecks; tunes common web queries to leverage information demand; proactively researches and locates necessary tools and processes to identify troublesome trends as they develop; analyzes trends and works with other web professionals to develop long-range plan designed to resolve problems and prevent them from

recurring), capacity planning (e.g., monitors file system space and data base allocation; verifies efficient use of disk storage, optimizes space allocation and avoids out-of-space conditions; provides appropriate hardware/software resources for web applications, including those with back-end RDBMS links to ensure enough resources for short-term and long-term growth), systems support (e.g., plans, sets procedures and provides technical oversight to ensure web systems are maintained at highest level of support; provides reliable and secure systems for business applications), problem resolution tracking (e.g., coordinates role of enterprise help desk to support web computing environment; ensures data pertaining to status of problems and service requests and concerning internal and external web use is entered into problem tracking system; provides current picture of service delivery status and backlog; assists in content and production of on-line help; monitors web queries), application support and optimization (e.g., ensures web applications run successfully and are optimally tuned to maximize use of system resources while minimizing user impact; assists application developers in determining first-level support role; provides technical consultation, facilitation and performance analysis skills to application development groups; resolves problems and answers questions related to web system platform environment), software upgrades and planning (e.g., ensures web environment is updated with current, stable versions of software products; maintains currency with operating system and support software; plans and implements major software upgrades; ensures change management procedures and methodologies are implemented and followed), and maintains the data backup/recovery environment (e.g., develops transaction logging and backup/recovery facilities and procedures to maximize recoverability from loss of data caused by user of system error and reduces human intervention and margin of error; responds quickly to refresh data; verifies implementation of correct backup strategy).

Note: All required courses/coursework, training and/or experience cited in the minimum class qualifications for employment must be at the post-secondary education level which means after completion of high school or its equivalent.

**CLASS TITLE:**

Information Technology Supervisor 1

**CLASS NUMBER:**

64117

**EFFECTIVE DATE:**

05/05/2002

**CLASS CONCEPT:**

The first supervisory class works under general direction & requires thorough knowledge of computer science, business or public administration, data processing, engineering, geology or comparable field which included coursework in advanced computer programming language, logic-based mathematics, data base concepts, basic data processing concepts, computer systems analysis & computer programming standards & methods in order to supervise Information Technology Specialist 2's &/or 3's &/or Programmer Specialists whose primary duties involve writing, analyzing & designing computer programs &/or systems integration for personal computers, & if assigned, also supervise clerical support staff &/or other lower-level technical staff, &/or direct & oversee contract staff.

**CLASS TITLE:**

Information Technology Supervisor 2

**CLASS NUMBER:**

64118

**EFFECTIVE DATE:**

05/05/2002

**CLASS CONCEPT:**

The second supervisory class works under general direction & requires thorough knowledge of computer science, business or public administration, data processing, engineering, geology or comparable field which included coursework in advanced computer programming language, logic-based mathematics, data base concepts, basic data processing concepts, computer systems analysis & computer programming standards & methods in order to supervise Information Technology Specialist 3's &/or Minicomputer Operations Technicians whose primary duties involve writing, analyzing & designing computer programs &/or systems integration for minicomputer &/or monitoring & maintaining minicomputer control processing unit operations, & if assigned, also supervise clerical support staff &/or other lower-level technical staff, &/or direct & oversee contract staff.

**CLASS TITLE:**

Information Technology Supervisor 3

**CLASS NUMBER:**

64119

**EFFECTIVE DATE:**

05/05/2002

**CLASS CONCEPT:**

The third supervisory class works under general direction & requires thorough knowledge of computer science, business or public administration, data processing, engineering, geology or comparable field which included coursework in advanced computer programming language, logic-based mathematics, data base concepts, basic data processing concepts, computer systems analysis & computer programming standards & methods in order to supervise Information Technology Specialists &/or Analysts whose primary duties involve writing, analyzing & designing computer programs &/or systems integration for mainframe computer or open system, & if assigned, also supervise clerical support staff&/or other lower-level technical staff, &/or direct & oversee contract staff.

<b>CLASS TITLE:</b> Information Technology Supervisor 1	<b>CLASS NUMBER:</b> 64117	<b>BARGAINING UNIT:</b> EX
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**EFFECTIVE DATE:**

05/05/2002

**JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)**

Supervises unit of Information Technology Specialist 2's &/or 3's &/or Programmer Specialists whose primary duties involve writing, analyzing & designing computer programs for personal computers & if assigned, also supervise clerical support staff &/or other technical staff, &/or directs & oversees contract staff involved in development of complex & specialized programs, assigns & prioritizes work, interviews applicants & recommends hiring decisions, evaluates staff performance, reviews program & system documentation & test results, monitors work progress, orients & trains new staff &/or recommends training seminars/classes for staff, assists staff in resolving difficult computer problems & answers technical questions, establishes & enforces unit policies & procedures, ensures programming standards are followed & conducts staff meetings.

Analyzes & designs large &/or complex computer systems; analyzes user needs & existing functions; analyzes hardware & software alternatives; reviews &/or writes system documentation; reviews &/or develops system test data & procedures & oversees & monitors system test results &/or designs data base files.

Provides technical computer assistance/information to users; troubleshoots & corrects complex computer-related problems (e.g., data base design; major system errors); coordinates work between information technology specialists &/or analysts & data entry &/or production staff; contacts &/or meets with users to discuss program/system plans, revisions &/or problems; contacts &/or meets with Ohio Department Of Administrative Services computer representatives to coordinate data base storage, computer operations &/or to exchange information; estimates time & cost for development &/or maintenance projects; attends training classes &/or seminars; reads literature to keep abreast of & evaluate any emerging trends & technologies.

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of computer science, or business or public administration, data processing, engineering, geology or comparable field which included coursework in logic-based mathematics, data base concepts, basic data processing concepts & high-level language computer programming; computer systems analysis, design; computer hardware systems; supervisory principles/techniques\*; employee development & training; project management. Skill in operation of computer terminal &/or personal computer & peripheral equipment (e.g., printers, modems). Ability to interpret variety of technical computer manuals & documentation; write computer programs & system documentation & instruction manuals; communicate verbally & in writing on technical & non-technical matters; establish friendly atmosphere as supervisor.

(\* ) Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of undergraduate core coursework in computer science, or completion of undergraduate core coursework in any academic major which included at least one course in each of the following: advanced-level computer programming language (for example, COBOL, Delphi, Java, Powerbuilder, Visual Basic, Pl 1, SAS PCS, PacBase, Full Visual Suite, Designer 2000, Developer 2000, C, C++, Visual C, ECL, Or Visual Studio), logic-based mathematics, data base concepts (for example, Oracle, Microsoft Access, Paradox, Sybase, IMS DB, DB2, Cache, DMS, Or RDMS), computer systems analysis & design, & basic data processing concepts; additional 3 1/2 years (42 mos.) exp. commensurate with job duties to be performed & knowledges & skills required as outlined in approved position description on file for position to be filled as advertised in job posting.; 3 mos. exp. in performing project management functions as defined in series purpose.

-Or 5 1/2 years (66 mos.) exp. commensurate with job duties to be performed & knowledges & skills required as outlined in approved position description on file for position to be filled as advertised in job posting; 3 months exp. in performing project management functions as defined in series purpose.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

Work involves operations of computer terminal for long periods of time; overtime may be required; travel may be required which may include overnight stay; may be required to be on-call 24 hours per day, 7 days per week.

<b>CLASS TITLE:</b> Information Technology Supervisor 2	<b>CLASS NUMBER:</b> 64118	<b>BARGAINING UNIT:</b> EX
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**EFFECTIVE DATE:**  
05/05/2002

**JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)**

Supervises unit of Information Technology Specialist 3's &/or Minicomputer Operations Technicians whose primary duties involve writing, analyzing & designing computer programs/systems for minicomputer &/or monitoring & maintaining minicomputer control processing unit operations, & if assigned, also supervise clerical support staff &/or other technical staff, &/or directs & oversees contract staff involved in development of complex & specialized programs, assigns & prioritizes work, interviews applicants & recommends hiring decisions, evaluates staff performance, reviews program & system documentation & test results, monitors work progress, orients & trains new staff &/or recommends training seminars/classes for staff, assists staff in resolving difficult computer problems & answers technical questions, establishes & enforces unit policies & procedures, ensures programming standards are followed & conducts staff meetings.

Analyzes & designs large &/or complex computer systems; analyzes user needs & existing functions; analyzes hardware & software alternatives; reviews &/or writes system documentation; reviews &/or develops system test data & procedures & oversees & monitors system test results &/or designs data base files.

Provides technical computer assistance/information to users; troubleshoots & corrects complex computer-related problems (e.g., data base design; major system errors); coordinates work between information technology specialists &/or analysts & data entry &/or production staff; contacts &/or meets with users to discuss program/system plans, revisions &/or problems; contacts &/or meets with Ohio Department Of Administrative Services computer representatives to coordinate data base storage, computer operations &/or to exchange information; estimates time & cost for development &/or maintenance projects; attends training classes &/or seminars; reads literature to keep abreast of & evaluate any emerging trends & technologies.

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of computer science, or business or public administration, data processing, engineering, geology or comparable field which included coursework in logic-based mathematics, data base concepts, basic data processing concepts & high-level language computer programming; computer systems analysis, design; computer hardware systems; supervisory principles/techniques\*; employee development & training; project management. Skill in operation of computer terminal &/or personal computer & peripheral equipment (e.g., printers, modems). Ability to interpret variety of technical computer manuals & documentation; write computer programs & system documentation & instruction manuals; communicate verbally & in writing on technical & non-technical matters; establish friendly atmosphere as supervisor.

(\*) Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of undergraduate core coursework in computer science, or completion of undergraduate core coursework in any academic major which included at least one course in each of the following: advanced-level computer programming language (for example, COBOL, Delphi, Java, Powerbuilder, Visual Basic, Pl 1, SAS PCS, Pacbase, Full Visual Suite, Designer 2000, Developer 2000, C, C++, Visual C, ECL, or Visual Studio), logic-based mathematics, data base concepts (for example, Oracle, Microsoft Access, Paradox, Sybase, IMS DB, DB2, Cache, DMS, or RDMS), computer systems analysis & design, & basic data processing concepts; additional 4 1/2 years (54 mos.) exp. commensurate with job duties to be performed & knowledges & skills required as outlined in approved position description on file for position to be filled as advertised in job posting.; 6 mos. exp. in performing project management functions as defined in series purpose.

-or 6 1/2 years (78 mos.) exp. commensurate with job duties to be performed & knowledges & skills required as outlined in approved position description on file for position to be filled as advertised in job posting; 6 months exp. in performing project management functions as defined in series purpose.

-Or equivalent of minimum class qualifications for employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

Work involves operations of computer terminal for long periods of time; overtime may be required; travel may be required which may include overnight stay; may be required to be on-call 24 hours per day, 7 days per week.

<b>CLASS TITLE:</b> Information Technology Supervisor 3	<b>CLASS NUMBER:</b> 64119	<b>BARGAINING UNIT:</b> EX
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**EFFECTIVE DATE:**  
05/05/2002

**JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)**

Supervises unit of Information Technology Specialists &/or Information Technology Analysts whose primary duties involve writing analyzing & designing computer programs/systems for mainframe computer or open system, & if assigned, also supervise clerical support staff &/or other technical staff, &/or directs & oversees contract staff involved in development of complex & specialized programs, assigns & prioritizes work, interviews applicants & recommends hiring decisions, evaluates staff performance, reviews program & system documentation & test results, monitors work progress, orients & trains new staff &/or recommends training seminars/classes for staff, assists staff in resolving difficult computer problems & answers technical questions, establishes & enforces unit policies & procedures, ensures programming standards are followed & conducts staff meetings.

Analyzes & designs large &/or complex computer systems; analyzes user needs & existing functions; analyzes hardware & software alternatives; reviews &/or writes system documentation; reviews &/or develops system test data & procedures & oversees & monitors system test results &/or designs data base files.

Provides technical computer assistance/information to users; troubleshoots & corrects complex computer-related problems (e.g., data base design; major system errors); coordinates work between information technology specialists &/or analysts & data entry &/or production staff; contacts &/or meets with users to discuss program/system plans, revisions &/or problems; contacts &/or meets with Ohio Department Of Administrative Services computer representatives to coordinate data base storage, computer operations &/or to exchange information; estimates time & cost for development &/or maintenance projects; attends training classes &/or seminars; reads literature to keep abreast of & evaluate any emerging trends & technologies.

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of computer science, or business or public administration, data processing, engineering, geology or comparable field which included coursework in logic-based mathematics, data base concepts, basic data processing concepts & high-level language computer programming; computer systems analysis, design; computer hardware systems; supervisory principles/techniques\*; employee development & training; project management. Skill in operation of computer terminal &/or personal computer & peripheral equipment (e.g., printers, modems). Ability to interpret variety of technical computer manuals & documentation; write computer programs & system documentation & instruction manuals; communicate verbally & in writing on technical & non-technical matters; establish friendly atmosphere as supervisor.

(\*) Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of undergraduate core coursework in computer science, or completion of undergraduate core coursework in any academic major which included at least one course in each of the following: advanced-level computer programming language (for example, Cobol, Delphi, Java, Powerbuilder, Visual Basic, PI 1, SAS PCS, Pacbase, Full Visual Suite, Designer 2000, Developer 2000, C, C++, Visual C, ECL, or Visual Studio), logic-based mathematics, data base concepts (for example, Oracle, Microsoft Access, Paradox, Sybase, IMS DB, DB2, Cache, DMS, or RDMS), computer systems analysis & design, & basic data processing concepts; additional 5 1/2 years (66 mos.) exp. commensurate with job duties to be performed & knowledges & skills required as outlined in approved position description on file for position to be filled as advertised in job posting.; 12 mos. exp. in performing project management functions as defined in series purpose.

-Or 7 1/2 years (90 mos.) exp. commensurate with job duties to be performed & knowledges & skills required as outlined in approved position description on file for position to be filled as advertised in job posting; 12 months exp. in performing project management functions as defined in series purpose.

-Or 12 mos. exp. as Information Technology Analyst 3, 64116.

-Or equivalent of minimum class qualifications for employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

Work involves operations of computer terminal for long periods of time; overtime may be required; travel may be required which may include overnight stay; may be required to be on-call 24 hours per day, 7 days per week.