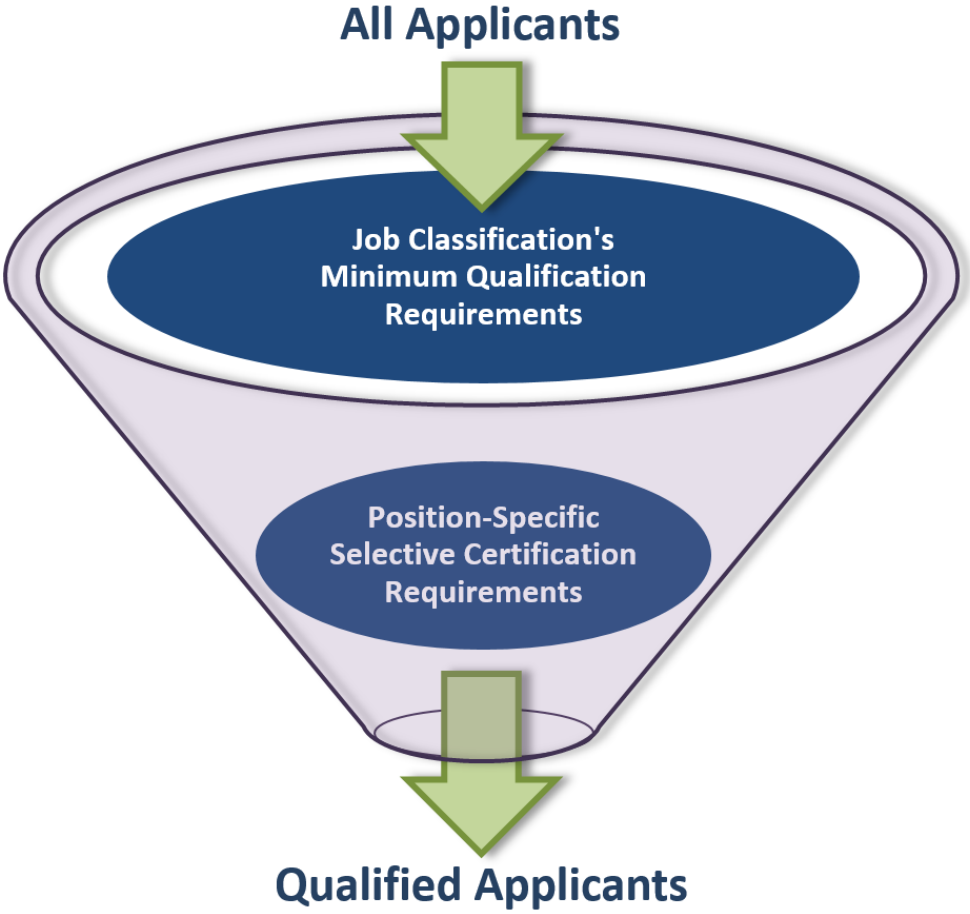
Iowa Department of Administrative Services – Human Resources Enterprise

# Selective List

## Introduction to Selectives

Selective certification requirements, known simply as "selectives," are position-specific additional qualification requirements that are based on the demonstrated job-related needs of an individual position being filled. Not every position will require the use of a selective and some positions may require more than one selective. Each selective used must be directly related to the duties of the job. Using a selective narrows the applicant pool by seeking a more specific type of background *within* the stated minimum qualifications. Selectives do not take the place of the minimum requirements for a vacancy; rather, selectives are necessary, position-specific requirements that an applicant must meet *in addition to* the minimum qualifications listed for each vacancy.

These selective certification requirements are usually based on technical competencies specific to an individual position. Selectives are often expressed as six months of experience or 12 semester hours of education in the selective area, or a combination of both. However, some others may require possession of a specific license, endorsement, or professional certification instead of education or work experience.



As the chart above depicts, in the case of vacancies that require a selective, an applicant is qualified if the minimum qualifications and the selective certification requirements are met. An applicant is not qualified for the particular position if the minimum qualifications for the job classification are met but the position-specific selective certification requirements are not met. In that instance, the applicant could still be qualified for another vacancy in the same job classification that does not require a selective or that requires another selective for which the applicant meets the criteria.

In cases where more than one selective is identified as required for a vacancy, the applicant must meet the requirements for all selectives listed to be considered qualified for the position.

## Using this Categorical List

The selectives on this list are sorted by category based on type of requirement. Clicking on the category desired in the Table of Contents below will lead to the selectives found in that category. The selectives in each category are listed numerically by a three-digit selective code. In some cases, a specific selective may be found in more than one category. Specific words can also be searched for in this document by using the *Edit* > *Find* function (Ctrl + F) in Adobe Reader.

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# Categorical Selective List

## Accounting/Budgeting/Finance/Statistics

**002 Accounting**
6 months' experience, 12 semester hours, or a combination of both in accounting or the accounting field. Accounting is the measurement, processing, and communication of financial information about economic entities which includes individuals and businesses.

**018 Auditing**
6 months' experience, 12 semester hours, or a combination of both in the official examination of and verification of financial accounts and records.

**058 Budgeting**
6 months' experience, 12 semester hours, or a combination of both in preparing, analyzing budgets; and providing advice/technical assistance with cost analysis, fiscal allocation, and budget preparation.

**069 Clerical Accounting**
3 years' of basic high school math courses (or 12 semester hours of college level basic math courses or above) or 6 months' experience where clerical accounting was a major function of the job which required the following:

- Ability to apply math skills in addition, subtraction, multiplication, division, percentages and fractions and basic algebra to pre-established accounting systems or procedures.
- Ability to use and modify electronic spreadsheet software such as EXCEL
- Ability to interpret and apply fiscal regulations
- Ability to read and understand basic financial and statistical reports

**100 Investments**
6 months' experience, 12 semester hours, or a combination of both in one or in a combination of any of the following areas:

- Investment analysis
- Portfolio management
- Work with fixed income securities
- Economics
- Finance

**208 Financial**
6 months' experience, 12 semester hours, or a combination of both in one or in a combination of the following areas: accounting, auditing, budgeting, economics, or finance.

**209 Student Loan/Financial Aid**
6 months' experience, 12 semester hours, or a combination of both in the administration of college financial aid programs, and/or banking or lending institution or loan servicer involvement as a student loan officer. Specifically applies to work with programs that assist students in seeking finances for college.

**210 Finance**
6 months' experience, 12 semester hours, or a combination of both, in one or in a combination of the following areas: introductory or advanced corporate finance; economics, money and banking; financial institutions, instruments and markets, or portfolio analysis.

**216 Financial Aid**
6 months' experience, 12 semester hours, or a combination of both in one or in a combination of more than one of the following:

- Educational financial aid
- Educational loans and grants
- Income maintenance

**218 Economics**
6 months' experience, 12 semester hours, or a combination of both in the social science that studies economic activity to gain an understanding of the processes that govern the production, distribution, and consumption of goods and services in an economy.

**661 Statistical Data Analysis**
6 months' experience, 12 semester hours, or a combination of both in statistical data analysis including:

- Statistical research
- Analysis or evaluation of statistical data
- Clerical or technical work primarily limited to collecting, compiling, or assembling statistical data should not be counted toward this selective.

**968 Statistics**
20 semester hours in post-high school coursework in statistics.

## Administration/Business/Insurance/Management

**061 Business Administration**
6 months' experience, 12 semester hours, or a combination of both in the running of a business.

**063 Business**
6 months' experience and 12 semester hours or a combination of both in one or more of the following:

- Accounting
- Actuarial science
- Auditing
- Banking
- Economics
- Grant writing
- Grant management
- Finance
- Marketing
- Management
- Personnel
- Public administration
- Management analysis
- Retail business
- Statistics
- Computer science
- Computer information systems
- Business education
- Political science

**084 Long-Term Care Insurance**
1 year of experience demonstrating technical knowledge (knowledge of the aspects of types of policies, benefits, premiums, deductibles) in long-term care insurance.

**085 Managed Long-Term Services and Supports**
6 months' experience working with capitated Medicaid or other managed care programs, preferably Managed Long-Term Services and Supports (MLTSS) which refers to the delivery of long-term services and supports (including both home and community based services and institution based services).

# Categorical Selective List

### 086 Business Systems Analyst

6 months' experience, 12 semester hours, or a combination of both in identifying, documenting, and analyzing business requirements and proposing large and/or complex technology solutions, serving as a conduit for communications between business users and information technology.

### 192 Economic Development

12 semester hours, 6 months' experience, or a combination of both with emphasis in economic development. Work in business administration, economics, finance, or other related fields should not be counted towards this selective unless the coursework was included as part of an economic development minor or specialty.
Experience counting towards the selective should reflect the following kinds of responsibilities:

- Providing consultation and planning to existing or proposed businesses or firms in developing business plans
- Conducting cash flow analyses
- Evaluating and determining economic feasibility
- Market analysis studies to determine the feasibility of starting or expanding business

### 246 Grant Writing and Management

6 months' professional level experience as one of a team or as the sole organizational resource managing the grant program, which includes all of the following: writing grant applications/proposals, managing grant funds, providing technical assistance to sub-grantees, monitoring grants, and grant performance reporting. Experience must have been a major or dominant function of the job. May also include experience reviewing, approving/awarding, and monitoring others' grant proposals, but this alone does not qualify.

### 359 Life and Health Insurance

6 months' experience, 12 semester hours, or a combination of both in any of the following types of insurance contracts:

- Life Insurance
- Health Insurance
- Health Maintenance Organization
- Dental
- Variable Annuities
- Life Annuities

### 364 Long-Term Care

6 months' experience working in long-term care in an administrative or direct care capacity. Long-term care is defined as a nursing facility, residential care facility, assisted living facility, hospital, hospice, long-term care licensing agency, or Medicaid or Medicare agency.

### 372 Determining Educational/Consumer Loans or Public Assistance Eligibility

6 months' experience in determining educational and/or consumer loans or public assistance eligibility.

### 415 Mortgage Lending

6 months' experience, 12 semester hours, or a combination of both.

### 435 Unemployment Insurance, Tax Law, and Collections

6 months' experience, 12 semester hours, or a combination of both including:
Iowa Unemployment Insurance, tax law and procedures, bankruptcy code, and rules on garnishments and liens

### 482 Office Management

6 months' experience or 12 semester hours or a combination of both where the applicant has received training in or been in charge of all or part of an office operation that included all or some of the following:

- Correspondence and other files and recordkeeping
- Answering phones and greeting the public
- Cashiering
- Bill collection and payment

- Accounting
- Facility management
- Secretarial and general clerical work

Coursework or experience limited to straight clerical functions is not applicable; the applicant must have education or experience aimed at managing these operations, even in a one-person office, where they were the primary party responsible for them. The applicant may have also supervised other staff but that is not required as long as they were in charge of managing the office or have taken coursework concerned with managing an office.

### 533 Property and Casualty Insurance

6 months' experience, 12 semester hours, or a combination of both involving any of the following types of insurance contracts:

- Automobile
- Homeowners
- Property
- Malpractice
- Workers' Compensation

### 538 Purchasing

6 months' experience in the purchasing of expendable/non-expendable goods.

### 564 Government Regulation and Accountability

Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of managing state or federal governmental regulations and implementing accountability provisions.

### 566 Federal Program Experience

Applicant should demonstrate a minimum of 6 months of work experience managing federal program requirements, expectations, and funding.

### 567 Experience Interpreting Iowa Code and Iowa Administrative Code

Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of developing and interpreting Iowa Code and Iowa Administrative Code.

### 568 Board Management

Applicant should demonstrate a minimum of 6 months of work experience working with and providing support for a formal board or commission structure.602 Real Estate

6 months' experience as a real estate agent experience would qualify. If the experience was not in sales, but for instance, in property management or development, it would need to be at a professional level. Office support work in real estate would not qualify. Coursework that is required to achieve a real estate license would be credited towards the 6 months' experience.

### 606 Facility Rental and Event Coordinator

6 months' experience in charge of all or part of an office operation that included all or some of the following:
Event planning and coordination: customer service and communications including answering phones and public interaction; correspondence to clientele, organization of files and recording; invoicing, accounting, expense and revenue management; facility management and coordination of building resources; and fundraising proposal writing and management of contributed resources.

### 621 Service and Performance Contract Negotiations and Management

6 months' experience, 12 semester hours, or a combination. Differs from labor contract negotiation. These are contracts with various vendors or other service providers and the applicant must have demonstrated experience and/or education that allowed them to review performance and service delivery and know what to do and be able to act when performance does not meet expectations. Includes: drafting or developing contracts for provision of products and/or services and the related budget components; negotiating the terms of contracts to include: costs, timeframes and performances

expectations and/or work products; monitoring and managing all aspects of the contracts: to include timely submission of financial reports, performance reports, work products and determining when appropriate benchmarks for payment of invoices are met. Specific educational courses that relate to the selective might include: contract management, business law, principles of economics, business management and similar courses.

### 649 Safety Programs/Workers' Compensation

12 months' experience involving responsibility for:

- Planning
- Promoting
- Coordinating
- Enforcing
- Carrying out a safety workplace program

### 704 Senior Health Insurance

1 year experience, 12 semester hours, or a combination of both, in the following: Long-term care insurance or Medicare supplement insurance

### 710 Federal Motor Carrier Safety Regulations – CDL Program

6 months' experience in administering, interpreting, and/or enforcing Federal Motor Carrier Safety Regulations related to the state's administering of Commercial Driver Licensing program.

### 729 Business Continuity/Disaster Recovery

6 months' experience, 12 semester hours, or a combination of both in planning for continuation of critical business functions in the event of a disaster.

### 733 Utility Rate Regulation

6 months' experience, 12 semester hours, or a combination of both in research and analysis of cost and rate structures of utilities and/or impacts of rate changes on demands for utility services.

### 735 Unemployment Insurance/Claims/Fact-Finding

1 year combined experience in conducting unemployment hearings and processing unemployment insurance claims.

### 736 Business Process Improvement

Successful candidates must possess the equivalent of 6 months' full-time experience leading business process improvement events, utilizing Kaizen and other continuous process improvement techniques.

### 737 Information Technology Project Management

A minimum of 6 months experience, 12 semester hours, or a combination of both, where the applicant has received training in or been in charge of information technology projects that included some or all of the following:

- Coordinating professional, paraprofessional, and technical personnel involved in the development of new and/or maintenance and operation of existing information technology systems;
- Responsible for multiple business and/or computer applications through the development and support phases;
- Initiates in systems analysis studies;
- Evaluates overall and individual work performance to determine effectiveness in providing quality products within time and cost restraints;
- Prepares or reviews written and oral reports of proposed information technology systems;
- Directs applications systems planning and budgeting, and acquisition and acceptance of new equipment for the department;
- Monitors time and dollar expenditures to ensure projects and budgets meet established targets;
- Reviews computer programming techniques and computer usage to ensure efficient and effective procedures are utilized;
- Develops analysis and programming guidelines and documentation standards;
- Evaluates and makes recommendations for needed project team and/or customer training;

- Reviews the designs of computer applications to ensure that all requirements are satisfied;
- Reconciles conflicts within and between staff regarding resources, deadlines, and standards;
- Writes periodic progress, project status and problems resolution reports for management review.

Coursework or experience limited to straight computer programming, systems analysis, or web development is not applicable; the applicant must have education or experience aimed at project management where the applicant was the primary party responsible for the project. The applicant may have also performed other duties or supervised other staff but that is not required as long as the applicant was in charge of managing the information technology project or have taken coursework concerned with managing information technology projects.

### 913 Buildings/Grounds Maintenance Management

6 months' experience, 12 semester hours, or a combination of both.

### 914 Park and Recreation Management

6 months' experience, twelve semester hours, or a combination of both in the operation and/or maintenance of parks or park recreational services. May have commonly been served at a national, state, or county park level.

### 916 Electronic Records Management

The equivalent of six months of full-time experience performing records management functions including the creation, organization, maintenance, administrative use, security, public accountability, storage, retention, conversion of paper documents to digital formats and digital to digital functionality.

### 932 Fundraising for Non-Profit Corporation Board

6 months' experience, 12 semester hours, or a combination of both in fundraising activities for a non-profit corporation board.

### 980 Strategic Planning

6 months' experience, 12 semester hours, or a combination of both. Generally, an administrative position (mid to upper level of the management team) is assigned this as one function of their overall job. However, there are some specialists who deal only in strategic planning. Some colleges and universities may now carry this as a major or area of emphasis as part of their business administration or public policy programs. For experience to count, the applicant must have had the responsibility either for coordinating or developing the organization's strategic plan. Sometimes an administrative assistant-type is responsible for a lower level of coordination, i.e., distributing information to managers, collecting what they develop, and putting it into one document; that is not what is sought here. This has to be experience to the point that the individual knows the following:

- What a good strategic plan looks like
- How to prepare a plan
- How to monitor progress and ancillary planning
- How to speak knowledgably for the organization about the plan

### 998 Member of the Society of Actuaries

Membership in the Society of Actuaries as one of the following:

- Associate of the Society of Actuaries (ASA)
- Chartered Enterprise Risk Analyst (CERA)
- Fellow of the Society of Actuaries (FSA)

## Agriculture/Biology/Environment

### 006 Agriculture

6 months' experience, 12 semester hours or a combination of both in agriculture or horticulture. The 6 months' experience must include working on a farm.

### 008 Air Pollution Control

6 months' experience, 12 semester hours, or a combination of both in the use of devices or practices to limit or prevent the release of pollution into the atmosphere.

### 039 Agriculture Extension Service

6 months' experience, 12 semester hours, or a combination of both working with educational and public awareness organizations. The experience/education can be met with 6 months' experience or 12 semester hours or a combination of both in one or in a combination of the following areas:

- Youth programs
- Extension services
- Vocational agriculture: planning, development, and implementation of educational programs
- Public service activities, which focus on the importance of agriculture to the state's economy, culture, and way of life

### 054 Biological Sciences

6 months' experience, 12 semester hours, or a combination of both in the study of living organisms. It is broadly divided into zoology and botany.

### 108 DNA Analysis

6 months of full-time experience, twelve semester hours of education, or an equivalent combination of both in the DNA analysis process including all of the following: extraction, quantitation, PCR amplification, and electrophoresis.

### 172 Ecology

6 months' experience, 12 semester hours, or a combination of both in the study of the relationship between organisms and the environment.

### 183 Environmental Health

6 months' experience, 12 semester hours or a combination of both in the branch of public health that is concerned with all aspects of the natural and built environment that may affect human health.

### 187 Energy

6 months' experience, 12 semester hours, or a combination of both in one or more of the following:

- Nuclear energy
- Solar energy
- Fuel allocation
- Hydro-electric energy
- Biomass
- Energy efficiency (meaning experience in environmental stewardship through the development of clean, reliable, and/or affordable energy technologies and programs for buildings, homes, transportation, power systems, and industry)

For use by the Iowa Department of Human Rights, this selective shall mean 6 months' experience, 12 semester hours, or a combination of both in weatherization, including one or more of the following:

- Weatherization Program Manager
- Weatherization Energy Auditor
- Experience with Building Construction and Energy Principles

### 231 Environmental Geology

6 months' experience or at least one course in the application of geologic principles (including hydrogeology) to problem solving in the areas of safe disposal of solid and liquid wastes, management and protection of water resources and in evaluating the impacts of various land-use practices.

### 242 Geology

# Categorical Selective List

For use by the Department of Natural Resources, the following shall apply: 12 months of experience, 24 semester hours of education, or a combination of both, practicing geosciences in areas which can include identification, interpretation, and logging of geologic materials, hydrogeology, geologic field work, or geologic mapping.

### 270 Hazardous Waste

6 months' experience in the disposal and proper handling of waste that poses a substantial or potential threat to public health or the environment.

### 288 Horticulture

6 months' experience, 12 semester hours, or a combination of both involving the production, processing, sales, or marketing of commercial fruits or vegetables.

### 442 Meteorology

A total of one year of full-time work experience in weather forecasting, performing atmospheric research, or air quality modeling including processing meteorological date for air quality modeling applications, or 24 semester hours of accredited university or college coursework in related fields, or a combination of both.

### 449 Natural Science

6 months' experience, 12 semester hours, or a combination of both in the sciences collectively that are involved in the study of the physical world and its phenomena, including biology, physics, chemistry, and geology, but excluding social sciences, abstract or theoretical sciences, such as mathematics, and applied sciences.

### 450 Natural Resources

6 months' experience, 12 semester hours, or a combination of both in one or in a combination of more than one of the following:

- Ecology
- Environmental planning
- Soil conservation
- Biological sciences
- Waste water treatment
- Forestry
- Engineering related to natural resource areas (dams, sanitary engineers, etc.)
- Outdoor recreation planning
- Physical sciences
- River basin planning
- Geography
- Wildlife management

### 456 Nutrient Management

18 semester hours in agronomy, chemistry, water resources, or biological sciences, or 6 months' experience in nutrient management which would have resulted in an ability to demonstrate an understanding of:

- Nutrient loading and transport principles as applies specifically to nitrogen and phosphorus.
- Nutrient management plans for agricultural production.
- Iowa's nutrient budget.
- Environmental principles and terminology in the areas of nonpoint source pollution, nutrients and water quality.
- Nutrient management, soils and agronomic principles and practices.
- Potential sources of NPS pollution, nutrient cycling and effects of nutrients on aquatic ecosystems.
- Nutrients and their relationship to Iowa's impaired waters (Section 303(d) list) and Total Maximum Daily Loads.
- Iowa's Nutrient Management Strategy.
- Ability to write and understand environmental rules, and the ability to communicate effectively the impacts of proposed or adopted rules.

A combination of the required education and experience would qualify.

### 484 Organic Agriculture

6 months' experience, 12 semester hours, or a combination of both in an ecological production management system that promotes and enhances biodiversity, biological cycles, and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain, or enhance ecological harmony. The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people.

### 657 Soil Conservation

6 months' experience, 12 semester hours, or a combination of both in the prevention of soil erosion due to a variety of causes – soil contamination, fires, natural disasters.

### 658 Integrated Solid Waste Management

The selective can be met with education, experience or a combination of both. Specific criteria may be required for certain positions. Solid waste does not include hazardous waste, animal waste or wastewater.
6 months' experience in:

- Landfill operation
- Recycling education/coordination
- Waste collection
- Solid waste consultant/engineer
- Solid waste management administration
- Solid waste planner (urban/regional)
- A college degree with 12 semester hours in:
- Waste management
- Ecology
- Urban and regional planning (with a solid waste component)
- Environmental sciences/studies
- Environmental engineering

### 660 Solid Waste

6 months of full-time work experience in one or more of the following solid waste areas:

- Facility operation (landfill, transfer station, compost facility, etc.)
- Recycling education and outreach/coordination
- Collection
- Consultant/engineering
- Agency/management administration
- Planning (urban/regional)
- Policy
- By-product marketing

For purposes of this selective, solid waste shall mean garbage, refuse, rubbish and other similar discarded solid or semi-solid materials resulting from industrial, commercial, and/or domestic activities.

### 759 Environmental Compliance Inspections

6 months' experience, 12 semester hours, or a combination of both.

### 760 Wastewater

6 months' experience in wastewater treatment which includes any of the following:

- Design of wastewater treatment systems including controlled discharge lagoons, aerated lagoons, activated sludge treatment systems, or on-site systems for municipalities or industries or,
- Issuing or preparing wastewater discharge operation permits for point source discharges of domestic wastewater or industrial discharges or,
- Experience in calculating wasteload allocations or water quality based permit limits for point sources discharges

### 762 Water Resources

6 months' experience, 12 semester hours, or a combination of both that encompasses the physical, chemical, and biological aspects of surface and ground water resources including the following:

- Surface water hydrology
- Ground water hydrology
- Hydraulics
- Water resources engineering
- Natural resources conservation engineering
- Water supply engineering
- Water quality engineering
- Erosion and sediment transport
- Surface or ground water chemistry
- Watershed dynamics
- Limnology
- Stream or wetland ecology

The Water Resources selective is distinct from the Water Supply, Waste Water, Water Quality, and Chemistry selectives in that the Water Resources selective applies to the management, engineering, and quality analysis of surface and groundwater resources in the natural environment rather than the processing of water in a waste water or drinking water treatment plant or the analysis of water samples in a laboratory.

### 763 Water Supply

6 months' experience in the operating of a drinking water (also called water supply) treatment plant or distribution plant. Also, operation of a wastewater treatment plant or distribution system would be acceptable, because many of the principles and mechanics are very similar. 12 semester hours in:

- Specific drinking water treatment
- Wastewater treatment
- Advanced analytical chemistry water/wastewater
- Water resources coursework such as hydrology
- Watershed management
- Hydrogeology

Also, any design courses specifically in water supply (drinking water) or wastewater treatment or distribution systems are acceptable.

### 900 Fisheries Biology

6 months' experience, 12 semester hours, or a combination of both.

### 901 Wildlife Biology

6 months' experience, 12 semester hours, or a combination of both.

### 907 Forestry

12 semester hours, 6 months continuous full-time experience, or a combination of both, in any of the following:

- Dendrology
- Silviculture
- Forest management, tree planting and habitat management
- Timber stand improvement
- Forest planning
- Planning and mapping using Geographic Information Systems (GIS) for forest improvement projects
- Forest inventory including tree identification
- Reforestation and/or forest health data collection and monitoring

### 936 Urban Forestry, Horticulture, or Agriculture

6 months' experience in urban forestry, horticulture, arboriculture (landscape plant care, plant nursery); or 12 semester hours in any combination of the following: forestry, horticulture, arboriculture, soil science, urban forestry, or plant science (biology, taxonomy, physiology). Training and demonstrated success in working with:

- Urban or community forestry projects;
- Experience with tree selection, planting and maintenance;
- Experience working with contractors and preparing detailed program reports.

**950 DNA**
College coursework or class from an accredited college or university covering the subject areas of biochemistry, genetics and molecular biology.

**966 Environmental Science**
6 months' experience, 12 semester hours, or a combination of both in the field that integrates physical, biological and information sciences to the study of the environment and the solution of environmental problems.

**973 Limnology**
Six months' experience or nine semester hours in a combination of limnology, aquatic ecology, or other water science coursework that provide the applicant with the following:

- Knowledge of the chemical constituents and physical properties of freshwaters.
- Understanding of the ecology of lotic and lentic ecosystems and basic familiarity with the aquatic plant and animal groups of these ecosystems.
- Ability to summarize and interpret water quality data from lotic and lentic systems.

## Automotive

**020 Auto Mechanics**
6 months' experience, 12 semester hours, or a combination of both in the inspection, maintaining, and repairing of cars and light trucks.

**023 Automotive Parts**
6 months' experience, 12 semester hours, or a combination of both with primary responsibility for parts inventory and just-in-time delivery of non-stock components in an automotive or truck repair environment.

**148 Diesel Engine Mechanic**
6 months' experience, 12 semester hours, or a combination of both in the maintenance or repair of diesel engines. This could also refer to the teaching of others how to maintain or repair diesel engines.

**988 Automotive Technology AA Degree**
Possession of an Automotive Technology AA Degree

## Building and Construction/Electricity

**060 Building Trades (Masonry, Carpentry)**
6 months' experience, 12 semester hours, or a combination of both in masonry/carpentry.

**062 Bridge Design**
6 months' experience, 12 semester hours, or a combination of both in the environmental, safety, and logistical issues of the design of bridges.

**090 Carpentry (Finish Carpentry Cabinet Making)**
6 months' experience, 12 semester hours, or a combination of both of experience in carpentry using woodworking machines, carpenter's hand tools, or power tools.

**177 Electricity**

6 months' experience, 12 semester hours, or a combination of both in the planning, inspection, installation, or maintenance of electrical systems.

**178 Elevators – Inspection, Installation and Maintenance**
6 months' experience, 12 semester hours, or a combination of both in the inspection, installation, and maintenance of elevators.

**187 Energy**
6 months' experience, 12 semester hours, or a combination of both in one or more of the following:

- Nuclear energy
- Solar energy
- Fuel allocation
- Hydro-electric energy
- Biomass
- Energy efficiency (meaning experience in environmental stewardship through the development of clean, reliable, and/or affordable energy technologies and programs for buildings, homes, transportation, power systems, and industry)

For use by the Iowa Department of Human Rights, this selective shall mean 6 months' experience, 12 semester hours, or a combination of both in weatherization, including one or more of the following:

- Weatherization Program Manager
- Weatherization Energy Auditor
- Experience with Building Construction and Energy Principles

**302 Exhibits Design**
6 months' experience in the design and construction of historical exhibits or 12 semester hours in graphic art, commercial art or architectural design.

**393 Masonry**
6 months' experience in the building of structures from individual units laid in and bound together by mortar such as brick, stone, marble, or granite.

**519 Plumbing-Steamfitting**
6 months' experience, 12 semester hours, or a combination of both.

**765 Welding (Arc and/or Acetylene)**
6 months' experience, 12 semester hours, or a combination of both in welding that uses an electric arc to provide heat or welding using acetylene which is a colorless flammable gas.

**766 Woodworking (Stain, Varnish, Finish)**
6 months' experience of employment in a primary capacity of processing or teaching others how to work wood into a useful or desired form including staining, varnishing and finishing of the wood.

## Chemistry

**049 Latent Fingerprint Development**
1 year of full time experience in the development of friction ridge skin prints and the photography thereof. It is termed "latent fingerprint development" because the fingerprints are not seen until developed/processed.

**094 Chemistry**
6 months' experience, 12 semester hours, or a combination of both in the branch of physical science that studies the composition, structure, properties, and change of matter.

# Categorical Selective List

**449 Natural Science**
6 months' experience, 12 semester hours, or a combination of both in the sciences collectively that are involved in the study of the physical world and its phenomena, including biology, physics, chemistry, and geology, but excluding social sciences, abstract or theoretical sciences, such as mathematics, and applied sciences.

**456 Nutrient Management**
18 semester hours in agronomy, chemistry, water resources, or biological sciences, or 6 months' experience in nutrient management which would have resulted in an ability to demonstrate an understanding of:

- Nutrient loading and transport principles as applies specifically to nitrogen and phosphorus.
- Nutrient management plans for agricultural production.
- Iowa's nutrient budget.
- Environmental principles and terminology in the areas of nonpoint source pollution, nutrients and water quality.
- Nutrient management, soils and agronomic principles and practices.
- Potential sources of NPS pollution, nutrient cycling and effects of nutrients on aquatic ecosystems.
- Nutrients and their relationship to Iowa's impaired waters (Section 303(d) list) and Total Maximum Daily Loads (TMDLs).
- Iowa's Nutrient Management Strategy.
- Ability to write and understand environmental rules, and the ability to communicate effectively the impacts of proposed or adopted rules.

**518 Physical Science**
6 months' experience, 12 semester hours, or a combination of both in one or in any combination of the sciences, such as physics, chemistry, astronomy, and geology, that analyze the nature and properties of energy and nonliving matter.

**941 Food Science**
12 semester hours in microbiology, biology, food science, chemistry, hospitality management or other science related to food safety OR 6 months of experience applying food science and microbiology knowledge to prepare or process food safely, including but not limited to managing a food establishment's food safety program, quality assurance staff, chef, or management of a food establishment or manufacturing facility; experience applying food safety regulations such as the FDA Food Code or Good Manufacturing Practices; or a combination of both experience and education.

**953 Chemistry Degree**
A bachelor's degree from an accredited college or university with a major in chemistry or a closely related physical science including the following college coursework: general chemistry and lab, two semesters of organic chemistry and labs, quantitative analysis and lab, and instrumental analysis and lab.

**954 Latent Fingerprinting**
1 year of experience in latent print examination; must be certified or certifiable.

## Clerical

**080 Typing Score of 50 or greater (50-59 WPM)**
Information about typing tests and scores related to State of Iowa employment can be found at:
https://das.iowa.gov/human-resources/state-employment/typing-test-information

**081 Typing Score of 60 or greater (60-69 WPM)**
Information about typing tests and scores related to State of Iowa employment can be found at:
https://das.iowa.gov/human-resources/state-employment/typing-test-information

**082 Typing Score of 70 or greater (70+ WPM)**
Information about typing tests and scores related to State of Iowa employment can be found at:
https://das.iowa.gov/human-resources/state-employment/typing-test-information

# Categorical Selective List

**083 Typing Score of 40 or greater (40-49 WPM)**
Information about typing tests and scores related to State of Iowa employment can be found at:
https://das.iowa.gov/human-resources/state-employment/typing-test-information

**140 Data Processing**
6 months' experience, 12 semester hours, or a combination of both in information technology. Requires general familiarity working with computers, typically in more administrative types of positions.

**162 Data Entry**
6 months' experience, 12 semester hours, or a combination of both in the process of entering data into a computerized spreadsheet or database.

**768 Word Processing**
6 months' experience using standard word processing software to produce final draft correspondence, reports, and other documents without assistance.

**930 Legal Secretary**
6 months' experience, twelve semester hours, or a combination of both in the following:
A person who works in the legal profession whose expertise includes typing and filing of contracts, appeals, pleadings, or other legal documents.

**931 Medical Secretary**
6 months' experience in performing secretarial duties using specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties may include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.

## Computers and Electronics

**022 Microsoft C#.Net**
6 months' experience, 12 semester hours, or a combination of both in the following:

- Developing code written in C#
- Developing Windows forms based on applications using Microsoft C#.Net.
- Developing web based applications using Microsoft ASP.Net.
- Using ADO.Net to interact with Microsoft SQL Server and other data bases.

**051 PHP**
12 months' experience that demonstrates knowledge and understanding of the PHP syntax and basic language components including specific experience at implementing web systems using object oriented PHP to access database, LDAP, HTTP and/or other remote resources.

**071 Applications Support**
6 months' experience, 12 semester hours, or a combination of both in the installation, repairing, and overseeing of computer hardware/software/or peripheral equipment. This also involves answering user inquiries on computer hardware and software operation.

**073 SQL**
6 months' experience, 12 semester hours, or a combination of both using Microsoft SQL toolset within no more than 2 major versions of the current release.

**074 Email**
6 months' experience, 12 semester hours, or a combination of both, building and configuring email servers; maintaining and configuring client email accounts; troubleshooting messaging problems and managing and maintaining spam filtering tools.

# Categorical Selective List

**076 NOVELL Network Administration**
6 months' experience, 12 semester hours, or a combination of both

**077 NT Administration**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of Windows NT Server Administration.

**078 XENIX**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of Microsoft Xenix Server Administration.

**079 Linux**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of Linux Server Administration.

**091 Citrix**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge in the application, networking, and cloud computing technologies of Citrix Systems, Inc. – a multinational software company.

**099 COBOL**
6 months' experience which demonstrates knowledge and understanding of the COBOL syntax and basic language components.

**103 Computer Science**
6 months' experience, 12 semester hours, or a combination of both in the study of computing, programming, and computation in correspondence with computer systems.

**121 T-SQL Business Query Writing**
6 months' experience writing complex T-SQL queries against SQL Server database which includes:

- SQL database experience must use most recent SQL release or two versions prior
- Queries against normalized, de-normalized and dimensional SQL database
- Use of database data models to design and construct queries
- Analyzing end-user presentation requirements and business rules and then translating into T-SQL queries
- Creating parameterized queries for application database calls
- Providing input to DBA(s) on data element formats and data granularity necessary to meet end-user requirements

**122 PC Business Applications**
6 months' experience, 12 semester hours, or a combination of both in:

- Developing, designing and implementing computer programs for business applications
- Performing technical analytical assignments in the development of computer systems
- Completing design of computer systems applications
- Working closely with users to analyze and prototype automated systems
- Performing programming systems maintenance and enhancements

**124 Power Builder**
6 months' experience, 12 semester hours, or a combination of both using the Power Builder application development environment.

**126 Visual Basic**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the VB syntax and basic language components.

# Categorical Selective List

**127 C, C++**

6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the C or C ++ syntax and basic language components.

**128 Arcview**

6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the Geographic Information System.

**129 DOS/Windows**

6 months' experience, 12 semester hours, or a combination of both with DOS (Disk Operating System) which is an acronym for several closely related operating systems.

**130 Mainframe Business Applications**

6 months' experience in the use of computer mainframe applications which support a major function of a business (i.e., human resources, accounting).

**131 DB2**

6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the DB2 Database Administration.

**132 Oracle**

6 months' experience, 12 semester hours, or a combination of both involving:

- Oracle System Administration including Oracle Database and Oracle Forms and Reports
- Application Server with training in Oracle System Administration I or II
- Oracle Certified Associate/Oracle Certified Professional

**133 Programming Languages**

6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of any programming languages.

**134 Synon**

6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the SYNON syntax and basic language components.

**136 SAS**

6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the SAS (Statistical Analysis System).

**137 Other Languages-Information Technology**

6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of any programming language.

**138 Microsoft Visual Studio**

6 months' experience, 12 semester hours, or a combination of both in the use of the Microsoft Visual Studio application development environment.

**139 Database**

6 months' experience, 12 semester hours, or a combination of both in:
Developing, installing and maintaining database management systems
Working in conjunction with the business application process staff to design specific database applications (assure that it can be loaded in and that it works as intended)
Developing and enforcing data definition standards to ensure data can be used across work units

# Categorical Selective List

**140 Data Processing**
6 months' experience, 12 semester hours, or a combination of both in information technology. Requires general familiarity working with computers, typically in more administrative types of positions.

**149 UNIX**
6 months' experience, 12 semester hours, or a combination of both in the use of the UNIX operating system.

**151 Desktop Publishing**
6 months' experience, 12 semester hours, or a combination of both in creating and designing documents using desktop publishing software.

**153 CICS**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the IBM mainframe CICS syntax and basic language components.

**154 MVS (Multiple Virtual Storage)**
6 months' experience, 12 semester hours, or a combination of both in the operating system on the System/370 and System/390 IBM mainframe computers.

**156 OS400**
6 months' experience, 12 semester hours, or a combination of both in using or administering the operating system for the AS/400 midrange server

**157 JCL**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the IBM mainframe JCL (Job Control Language) syntax and basic language components.

**158 Other Mainframe/Mini Operating Systems**
6 months' experience, 12 semester hours, or a combination of both in administering mainframe/mini operating systems of a computer.

**159 PC Software**
6 months' experience, 12 semester hours, or a combination of both in the development or usage of PC Software

**161 Operations**
6 months' experience, 12 semester hours, or a combination of both involving:
Operating and scheduling a computer system hardware installation and related peripheral equipment
Coordinating workflow scheduling and distribution
Serving as a contact point for resolution of customer problems involved with system operation

**162 Data Entry**
6 months' experience, 12 semester hours, or a combination of both in the process of entering data into a computerized spreadsheet or database.

**163 Print Operations**
6 months' experience in the display or printing of computerized reports.

**166 CPU Operation (Central Processing Unit)**
6 months' experience, 12 semester hours, or a combination of both in the electronic circuitry within a computer that carries out the instructions of a computer program by performing the basic arithmetic, logical, control and input/output (I/O) operations specified by the instructions.

**167 Other Peripheral Equipment Operations**
6 months' experience, 12 semester hours, or a combination of both in the operation of peripheral computer equipment (i.e., computer monitors, speakers).

**168 Customer Support**
6 months' experience providing assistance in the maintenance, operation, installation, and troubleshooting for computer software and hardware.

**169 Help Desk Support (2 Levels)**
6 months' experience, 12 semester hours, or a combination of both in assisting users with step-by-step detailed instructions of procedures to resolve the users' issue. Requires a good technical proficiency in the area being supported.

**170 Hardware Support**
6 months' experience, 12 semester hours, or a combination of both in the maintenance, installation, and repair of the physical parts of a computer.

**175 Advanced Help Desk Support**
6 months' experience, 12 semester hours, or a combination of both; requires a high technical proficiency and usually supports the LAN administrators, system analysts, database administrators or the software/hardware vendor.

**195 Internet**
6 months' experience, 12 semester hours, or a combination of both in the use or technical maintenance of the internet. The internet is a *network of networks* that consists of millions of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies.

**196 JAVA**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the JAVA syntax and basic language components.

**197 PERL**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the PERL syntax and basic language components.

**198 HTML**
6 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the HTML syntax and basic language components.

**199 ASP (Active Server Pages)**
6 months' experience, 12 semester hours, or a combination of both in this computer language for Internet development.

**228 Geographic Information Systems (Department of Transportation)**
18 semester hours of post-high school education at an accredited college, university or trade school with 12 semester hours of coursework or 6 months of experience to substitute the 12 hours of coursework from which the applicant would have gained the following competencies, as demonstrated by work examples provided in their application:

- Ability to create, edit, import, export, project, and georeference GIS data.
- Demonstrated proficiency with the major GIS software products. These products include ArcView, ArcInfo, ArcGIS, GeoMedia, GeoMedia Pro, etc.
- Ability to conduct spatial analyses and data queries in order to answer complex questions relating to spatial data.
- Ability to produce cartographic documents which clearly present outputs from spatial analyses and data queries. Document formats should at a minimum include hardcopy as well as the following digital formats .pdf, .tif, and .jpg.

# Categorical Selective List

### 230 Geographic Information Systems (Department of Natural Resources)

18 semester hours of education or 1 year of experience that demonstrates the applicant has competencies in the following areas:

- Ability to create, edit, import, export, project, and georeference GIS data.
- Demonstrated proficiency with the major ESRI software products. These products include ArcView, ArcInfo, ArcGIS.
- Utilize user-developed and/or ESRI scripts and extensions for incorporation and utilization in projects.
- Ability to conduct spatial analyses and queries in order to answer complex questions relating to spatial data.
- Ability to produce cartographic documents which clearly present outputs from spatial analyses. Document formats should at a minimum include hardcopy as well as the following digital formats .pdf, .tif, and .jpg.
- Ability to work with, or train, others to use GIS to attain a common goal

Applicant must provide specific work examples to demonstrate each of the competencies. The examples should include a thorough explanation of the project goal, the process utilized and the result of the process.

### 233 Data Modeling

Must have 6 months experience acting in a data modeling role with relational database platform architecture. Required skills include:

- Knowledge of Erwin, logical modeling, data architecture/normalization/analysis
- Ability to:
  - Define business rules and data requirements
  - Perform all aspects of data analysis and logical data modeling, including both 3rd normal form of online transaction protocol (OLTP) applications as well as dimensional modeling for decision support warehouse applications
  - Transform logical models into physical database designs, estimation of volumes and frequencies and denormalization as appropriate
  - Build standards and administer all data models
  - Collaborate with Data Base Administrators and the Data Warehouse Architect regarding the development and adherence of data modeling standards, methods and practices

### 234 ADSO-IDMS

6 months' experience, 12 semester hours, or a combination of both in this very specific online computer coding language.

### 243 Geographic Information Systems Support Work

12 semester hours, 6 months experience, or a combination of both in creating, editing, importing, exporting, projecting, and/or geo-referencing GIS data.

### 320 Integrated Database Management Systems

6 months' experience, 12 semester hours, or a combination of both.

### 382 MDL (Microstation Development Language)

6 months' experience in this CAD software product for two and three dimensional design and drafting.

### 409 Personal Computer

6 months' experience, 12 semester hours, or a combination of both in the use of a personal computer

### 413 Network Coordination

6 months' experience, 12 semester hours, or a combination of both involving:

- Installing and configuring network software
- Maintaining security
- Establishing operating standards
- Performing technical support for networks

### 417 Business Objects

Must have 6 months of solid Business Objects experience. Required skills include:

- Ability to create Universes
- Design and implement reports
- Familiarity with ANSI SQL
- Experience with Business Objects Supervisor
- Universe design
- Report publishing
- Automated report generation and document security
- Must be able to work with Business Intelligence Team to verify Business Objects universe models are properly implemented in test and production environments and that they adhere to all standards
- Must be able to develop a Universe Structure to allow different layers of access
- Must have the ability to design and test reports and understand the existing Business Objects infrastructure
- Must be able to understand a Physical Relational Model

### 418 Network Management

6 months' experience, 12 semester hours, or a combination of both involving:

- Cisco equipment configuration or troubleshooting
- SNA Server
- Host Integration
- Server configuration
- Management
- Troubleshooting
- Basic understanding of TCP/IP
- Network troubleshooting for network equipment
- Network performance and network connectivity
- Work in team environment to resolve problems
- Design and installation network hardware and software

### 419 PC/LAN Server

6 months' experience, 12 semester hours, or a combination of both in the following:

- Generating, testing and maintaining LAN/server system software
- Installing and maintaining PC hardware and software
- Creating data sets using a variety of software packages
- Combining and converting data sets from different formats and sources to be used in spreadsheets, databases, and graphics software packages
- Producing final data summaries and reports using standard statistical procedures
- Producing final tables and graphics using various software packages

### 420 Business Objects Reporter

6 months' experience creating, scheduling and publishing Business Object Reports. This includes:

- Creating reports through the use of Business Objects standard objects.
- Creating and/or tuning reports by directly editing embedded SQL statements.
- Creating a wide variety of types of report formats and graphics.
- Creating recurring reports distributed via email or Business Objects scheduler on an automated basis.

### 421 Acquisition DBA (Database Administration)

6 months' experience, 12 semester hours or a combination of both where the applicant must have experience acting in an acquisition DBA role extracting data from source systems and moving extracted data into a relational database. The sum of all DBA-related activities should, as a minimum, have included:

- Working with mainframe dataset structures.
- Designed and either created or assisted in the creation of extract programming generating data for import into a relational database environment.

- Designed, constructed, maintained, and operated a scheduled set of robust data import scripts, processes, and procedures that included automated error-handling processes and quality assurance functionality.
- Physical database construction and maintenance of normalized, denormalized, or dimensional databases used in data warehouse staging environment.
- Translate business rules into technical specifications
- Provides direction to System Administrator(s) and System DBA(s) related to performance management of database.
- Assist in the design and development of Data Mart databases supporting end-user requirements.
- Assist in data mart level database performance testing including concurrent-user performance testing and analysis.
- Assist in database table indexing including design and maintenance.
- Assist in database data space partitioning.
- Experience designing, constructing, executing, monitoring, and maintaining complex Data Transformation Services (DTS) packages in an automated environment
- Experience using SQL Agent to automate and schedule SQL Server jobs and processes.
- Experience developing, using and maintaining stored procedures that are used in support of database activity automation and/or by web-based applications.

### 422 Data Mart DBA (Database Administration)

6 months' experience or 12 semester hours or a combination of both where the applicant must have experience designing, constructing and maintaining data mart databases in a decision support system or OLAP environment. Must have designed, constructed and maintained at least 1 dimensionally modeled database with a minimum of 10 million fact records and 4 dimensions. The sum of all DBA-related activities should, as a minimum, have included:

- Assists in the analysis of variable length and fixed length non-database dataset structures.
- Assists in the creation of dataset extracts. Provides direction to extract programmer concerning business and technical rules to apply within extracts.
- Logical database modeling.
- Physical database modeling.
- Physical database construction and maintenance.
- Designed (or assisted in the design), created and maintained conformed dimensions in support of dimensionally modeled databases.
- Designed (or assisted in the design), created and maintained dimensionally modeled databases designed for OLAP data marts and for data mining activities.
- Accomplished regularly scheduled data mart data refreshments and rebuilds in a production environment.
- Perform all aspects of data analysis including application business rules and data definition analysis for form, fit and function related to end-user requirements.
- Provides direction to System Administrator(s) and System DBA(s) related to performance management of database.
- Performs data mart level database performance testing including concurrent-user performance analysis and testing. Makes architectural and system configuration recommendations.
- Performs end-use analysis to design and create database indexes including clustered and composite indexes. Performs regular performance analysis and updates and/or redesigns indexes for query performance improvement. Uses Query Optimizer tool.
- Performs end-use analysis to design and create indexed views.
- Experience designing, constructing, executing, monitoring, and maintaining complex Data Transformation Services (DTS) packages in an automated environment.
- Experience using SQL Agent to automate and schedule SQL Server jobs and processes.
- Experience developing, using and maintaining stored procedures that are used in support of database activity automation and/or by web-based applications.

### 423 VB.Net

12 semester hours of coursework or 6 months of experience from which the applicant would be able to specifically perform the following:

- Develop Windows forms based on applications using Microsoft VB.Net

- Develop web based applications using Microsoft ASP.Net
- Use ADO.Net to interact with Microsoft SQL Server and other data bases
- Develop and manage .Net components in an object oriented environment

### 431 Enterprise Data Access (EDA)

6 months' experience, 12 semester hours, or a combination of both in this productivity tool to access data on interconnected vendor systems; the candidate either has it or does not.

### 432 IDMS-CA

6 months' experience, 12 semester hours, or a combination of both in this form of database structure; the candidate either has it or does not.

### 433 Panvalet

6 months' experience in this control and source code management system for mainframe computers; the candidate either has it or does not.

### 434 VSAM

6 months' experience, 12 semester hours, or a combination of both in this form of data file structure; the candidate either has it or does not

### 436 JAVAScript

6 months' experience, 12 semester hours, or a combination of both in this computer language for Internet development; the candidate either has it or does not.

### 437 Power Designer

6 months' experience, 12 semester hours, or a combination of both in this productivity tool for data base development; the candidate either has it or does not.

### 438 Visual Interdev

6 months' experience, 12 semester hours, or a combination of both in this developmental tool for Internet applications; the candidate either has it or does not.

### 439 VB Script

6 months' experience, 12 semester hours, or a combination of both in this computer language for Internet development; the candidate either has it or does not

### 554 Database Management

Applicants must possess a minimum of 12 semester hours of personal computer training, or equivalent contact hours that includes database management training, or 12 months of experience operating computers to produce work products which includes creating, modifying, or maintaining data bases.

### 652 Spreadsheets

6 months' experience where job tasks required the incumbent to establish, modify and manipulate spreadsheets without assistance using standard spreadsheet software. The spreadsheet frees the user from the laborious manipulation of numbers and other data and allows them to concentrate on the issue itself.

### 714 Vulnerability Testing

6 months' experience, 12 semester hours, or a combination of both in assessing and analyzing information technology systems for weaknesses and misconfigurations. Product knowledge may be in the following:

- Nessus
- ISS
- SATAN
- SAINT

- Whisker
- Nmap
- Etheral
- tcpdump

### 715 TeraData

6 months' experience, 12 semester hours, or a combination of both in this fully scalable relational database management system produced by Teradata Corp. It is widely used to manage large data warehousing operations.

### 716 Penetration Testing

6 months' experience, 12 semester hours, or a combination of both in testing information technology system vulnerabilities to gain unauthorized access. This could be called Red Teaming or White Hat Hacking. Product knowledge may be in the following:

- Nessus
- ISS
- SATAN
- SAINT
- Whisker
- Nmap
- Etheral
- tcpdump

### 717 Security Administration

6 months' experience, 12 semester hours, or a combination of both in building and maintaining skillset and knowledge base for security issues that impact information technology systems. Applicants may refer to themselves as Security Administrator. System Administrator is not the same.

### 718 Secure Applications Development

6 months' experience, 12 semester hours, or a combination of both in knowledge and application of secure coding practices. Product knowledge may be in the following:

- RATS
- FlawFinder

Application development experience, or work as an application developer does not meet the selective.

### 719 Intrusion Detection (often referred to as IDS)

6 months' experience, 12 semester hours, or a combination of both in systems that monitor network traffic for hacking and intrusion attempts. Applicant may have certification in GIAC Certified Intrusion Analyst, with knowledge in Snort, RealSecure, Cisco IDS, Dragon, and ISS.

### 723 Security Awareness, Training, and Education

6 months' experience, 12 semester hours, or a combination of both in the design and production of educational materials for information security.

### 724 Privacy – Information Technology

6 months' experience, 12 semester hours, or a combination of both in the awareness of privacy issues and how they relate to information security. This selective was added under the more general umbrella of "Information Assurance." If you look at a class description for one of the IT classes, such as Information Technology Specialist 3, you may get a better sense of some of the other areas under this umbrella.

### 725 Security Audits

6 months' experience, 12 semester hours, or a combination of both in analyzing and reporting the discovered results of vulnerability testing and penetration testing. Knowledge and experience in auditing security configurations and controls. Applicant may have product knowledge in the following: Nessus, ISS, SATAN, SAINT, Whisker, Nmap, Etheral, tcpdump.

# Categorical Selective List

### 726 Firewalls

6 months' experience, 12 semester hours, or a combination of both in configuration and administration of network traffic filtering devices (firewalls). Applicant may have knowledge in the following: Cisco Pix, Guanlet, CheckPoint Firewall-1, Ipchains.

### 727 Risk Assessment

6 months' experience, 12 semester hours, or a combination of both in analyzing and identifying risks and the corresponding potential impact to information and information technology systems.

### 728 Physical Security

6 months' experience, 12 semester hours, or a combination of both in the physical aspects of securing information technology systems.

### 955 Business Application Processes

6 months' experience, 12 semester hours, or a combination of both including:

- Ability to coordinate people and resources required to accomplish objectives without use of supervisory authority
- Ability to solve program administrative and service delivery problems requiring evaluation of information from a variety of sources with few precedents
- Knowledge of information systems, developments, and applications, including the ability to analyze and convert work processes to computer applications
- Familiarity with connecting business requirements established by management with the services and capabilities deployed with information technology services
- Essential business processes that use or can use information technology applications
- Analysis of existing business processes and creating or modifying that process in an automated structure or framework
- Knowledge of the process of transforming business processes that have been defined into a usable application through which the end user can easily access information

### 956 Systems Programming/Systems Management

6 months' experience, 12 semester hours, or a combination of both in generating, testing, and maintaining computer operating system software.

### 957 Computer Education

6 months' experience, 12 semester hours, or a combination of both in developing and conducting information management-related training classes.

### 958 Microsoft BizTalk Development

6 months' experience in Microsoft BizTalk Server including:

- Experience developing complex BizTalk integrations
- Experience with the current version and/or one version prior of Microsoft BizTalk Server and Microsoft BizTalk ESB Toolkit
- Knowledge of methods and tools used to troubleshoot and monitor BizTalk system performance

### 959 Computer System Operations

6 months' experience, 12 semester hours, or a combination of both in operating a computer system hardware installation and related peripheral equipment; serves as a contact point for resolution of customer problems involved with system operation.

### 960 Computer Support

6 months' experience, 12 semester hours, or a combination of both

# Categorical Selective List

### 969 Computer Forensics

2 years' experience performing and conducting forensic examinations on a variety of electronic and digital media. In addition, all applicants must hold the following certifications from the International Association of Computer Investigative Specialists (IACIS):

- Certified Computer Examiner (CFCE)
- Certified Electronic Evidence Collection Specialist (CEECS)

### 976 Python

12 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the Python programming language, including but not limited to syntax, libraries, relational object mappers, multi process architectures and design.

### 977 R Programming Language

12 months' experience, 12 semester hours, or a combination of both that demonstrates knowledge and understanding of the R programming language, including but not limited to statistical sciences and analysis, data management and machine learning.

### 984 Business Information Technology

6 months' experience, 12 semester hours, or a combination of both, in business information technology including any of the following: support for management decision-making using computer technology, i.e., computer decision support systems, billing, accounting, queries, data modeling, and IT/manager interface including support for individual, group and corporate goals and managerial concerns with the design, use and implementation of information technology.

### 985 Network Monitoring Development

6 months' experience, 12 semester hours, or a combination of both where the applicant has been directly involved in development and administration of data and analysis of standard MIB and related monitoring data of wide area communications network elements:

- Establish requirements for network monitoring tools
- Setup and management of related applications and databases
- Generate schemes for concise event correlation and reporting
- Develop network status maps and reporting displays to be utilized by network support technicians
- Create succinct network health and overall status reports for status changes, outages/impairments, and cyber security concerns.

### 990 Cyber Security Planning

A minimum of 18 months of full-time work experience in cyber security planning at a professional level that included the following major functions: participating in and leading a company-/agency-wide cyber security planning program including the identification of cyber security risks, development of prevention and response plans to minimize cyber-attack damages including mass care and consequences management, and the development of continuation of business operation plans; participating in national cyber security planning initiatives and exercises; responding to and participating in the recovery work from cyber security incidents; and working across governments, private sectors, and non-profit organizations collaboratively on cyber security planning activities and plans for response.

### 997 Microsoft Business Intelligence (BI) Developer

6 months' experience or 12 semester hours or a combination of both with experience designing, building and maintaining business intelligence (BI) solutions using the Microsoft BI toolset within no more than 2 major versions of the current release.

- Ability to architect Microsoft Analysis Services databases:
  Multidimensional
  Tabular
- Ability to develop custom measures using:
  Multidimensional Expressions (MDX) Language for OLAP databases
  Data Analysis Expressions (DAX) Language for Tabular databases

- Design and Develop ETL routines Using Microsoft technologies:
  Transact SQL (T-SQL)
  SQL Server Integration Services (SSIS)
- Develop data visualizations including but not limited to:
  Dashboards
  Reports
  MS SharePoint
  Performance Point
  PowerPivot
  Power View
  Reporting Services

## Criminal Investigation/Corrections/Criminal Justice

**001 Investigative Work**
6 months' experience, 12 semester hours, or a combination of both in one or in any combination of the below areas involving:

- Private investigation
- Insurance company investigations
- Parole/probation officers and similar investigative backgrounds such as misrepresentation/fraud investigations, or accident analyses
- Creating reports to determine cause or responsibility in illegal or inappropriate actions involving the public domain

**106 Corrections (or Penology)**
6 months' experience, 12 semester hours, or a combination of both in the various methods, such as incarceration, parole, and probation, by which society deals with convicted offenders.

**107 Criminal Justice**
6 months' experience, 12 semester hours, or a combination of both in enforcement, courts, or corrections, as demonstrated by one or more of the following:

- Police officer
- Investigator
- Bailiff
- Correctional counselor
- Correctional officer
- Criminal prosecutor
- Criminal defender
- Sheriff
- Sheriffs' deputy
- Police detective
- Coursework in penology
- Corrections
- Criminal justice

**355 Law Enforcement (Includes Investigating Criminals)**
6 months' experience, 12 semester hours, or a combination of both in law enforcement and investigating criminals.

**371 Motor Vehicle Law Enforcement**
6 months' experience as a Motor Vehicle Enforcement Officer enforcing commercial vehicle requirements of the code of Iowa and Federal Motor Carrier Safety and Hazardous Materials regulations.

**576 Quantitative Social Science Research**

6 months' experience, 12 semester hours, or a combination of both in quantitative social science research in sociology, psychology, economics, government, public administration, or criminal justice, which includes the following:

- Developing research methodologies and data collection methods
- Using statistical software such as SPSS and SAS
- Calculating statistical data and analyzing and drawing conclusions from it
- Compiling statistical data and writing books and reports

**881 Male**

This requirement is used only to protect and insure the privacy of inmates while correctional officers conduct duties that include strip searches. Applicants desiring to be considered for positions using this selective should indicate gender on the application.

**891 Female**

This requirement is used only to protect and insure the privacy of inmates while correctional officers conduct duties that include strip searches. Applicants desiring to be considered for positions using this selective should indicate gender on the application.

## Customer and Personal Service

**168 Customer Support**

6 months' experience providing assistance in the maintenance, operation, installation, and troubleshooting for computer software and hardware.

**194 Customer Liaison/Advocacy**

6 months' experience in serving as a customer advocate with demonstrable experience in all of the following areas: Served as one of the main contacts for customers in handling a question or problem; used existing procedures and implemented new procedures for keeping customers updated with timely and frequent information about progress towards resolving issues; facilitated resolutions to customer issues by bringing together appropriate experts; and recommended procedures, products, or services to ensure that the problems do not occur again and that customers' needs are better met/served.

**993 Customer Service with Market Sales Focus**

12 months' experience serving as an inside sales and/or customer service representative with experience in at least three of the following areas:

- Attraction of potential customers by answering product and service questions;
- Management of customer orders from receipt through delivery/installation;
- Assisting customers with product selection utilizing product knowledge;
- Handling customer issues to ensure customer satisfaction;
- Performing outbound calls to inform customers of products and services.

## Design

**013 Architectural History**

6 months' experience, 12 semester hours, or a combination of both. Architectural history refers to the field of study of architectural style which includes the theoretical basis of design and the evolution of design vocabularies and construction techniques.

**014 Architecture**

6 months' experience, 12 semester hours, or a combination of both in both the process and the product of planning, designing, and constructing buildings and other physical structures.

**062 Bridge Design**
6 months' experience, 12 semester hours, or a combination of both in the environmental, safety, and logistical issues of the design of bridges.

**302 Exhibits Design**
6 months' experience in the design and construction of historical exhibits or 12 semester hours in graphic art, commercial art or architectural design.

**520 Painting and Decorating**
6 months' experience, 12 semester hours, or a combination of both.

**875 Architecture (Registered)**
6 months' experience as a registered architect.

## Education and Training

**095 Child Development (or Early Childhood)**
6 months' experience, 12 semester hours, or a combination of both. Experience should be in the direct care or the over-seeing of others who provide direct care to children.

**102 Firearms**
6 months of full-time experience in a position involving the teaching of others the safe handling of firearms and ammunition.

**111 Law Enforcement Academy Graduate**
Applicant must be a graduate from an accredited law enforcement academy approved by the Iowa Law Enforcement Academy. Applicants must state on their application that they have graduated from an accredited academy.

**146 Disabilities**
6 months' experience, 12 semester hours, or a combination of both in one or in a combination of the following:

- Deaf education
- Deaf counseling
- Special education
- Intellectual disability
- Disability counseling
- Any experience dealing with the housing, transportation, accessibility, education, employment or advocacy for mentally or physically handicapped individuals.

**160 Teaching/Training**
6 months' experience, 12 semester hours, or a combination of both in instructing students individually or in groups – this includes preparing materials, delivering material (i.e., lectures, presentations, demonstrations), keeping records of student progress and communicating progress to students.

**186 Education**
6 months' experience, 12 semester hours, or a combination of both in education, instructional design, or a closely-related field.

**203 Instructional Design**
6 months' experience, 12 semester hours, or a combination of both in all of the following:

- Determining the current state and needs of the learner
- Defining the end goal of instruction
- Creating a plan to bridge the gap between the current state of the learner and the end goal of instruction

- Evaluation of this training

### 207 Editing
6 months' experience, 12 semester hours, or a combination of both in applying analysis and judgment to find and solve problems of grammar, spelling, punctuation, substance, format, organization, and style by altering, adapting, or refining content of publications, mass mailings, forms, or other material. Includes reviewing text for inconsistencies and rewriting text to improve accuracy, clarity, coherence, consistency, and effectiveness.

### 358 Library Science
6 months' experience, 12 semester hours, or a combination of both in the interdisciplinary or multidisciplinary field that applies the practices, perspectives, and tools of management, information technology, education, and other areas to libraries; the collection, organization, preservation, and dissemination of information resources; and the political economy of information.

### 560 School Business Official Authorization
Applicant must hold this specific authorization from the Iowa Board of Educational Examiners.

### 562 Online Course and/or Curriculum Development and Delivery
Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in developing and delivering online courses and/or curriculum at the elementary, secondary, or community college levels. This would include experience with moodle and web-based applications.

### 563 Educational Policy
Applicant should demonstrate a minimum of 1 year experience, 12 semester hours, or a combination of both in the area of developing and managing local, state, or federal educational policy.

### 565 Social Science Research (Qualitative and/or Quantitative)
Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of developing and conducting social science research in fields of study including, but not limited to, education, psychology, sociology, and anthropology. Research may be both qualitative and/or quantitative and may be in one or in a combination of the above fields of study.

### 569 Teacher Leadership and Compensation Program Experience
Applicant should demonstrate a minimum of 6 months of work experience developing and implementing a research-based model related to school district Teacher Leadership and Compensation structures.

### 570 Multi-Tiered Systems of Support (MTSS) Experience
Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of developing and implementing a multi-tiered system of support for school children. This includes experience in all of the following:

- Evidence-Based Curriculum and Instruction shall be provided at the Universal level
- Universal Screening shall be used three times per year
- Evidence-based, instructional interventions at the Targeted and Intensive levels shall be provided to each student who needs them
- Progress Monitoring Data shall be collected and used to guide instruction
- Data-Based Decision Making

### 571 Response to Intervention Experience
Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of developing and implementing a Response to Intervention framework intended to provide appropriate interventions to school-aged children related to learning difficulties.

# Categorical Selective List

### 572 Competency-Based Education Experience

Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of competency-based education structures.

### 573 Curriculum and Instructional Design

Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of educational curriculum and instructional design and implementation.

### 574 Professional Development Experience

Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of educational professional development design and implementation.

### 663 Substance Abuse Programs

6 months' experience, 12 semester hours, or a combination of both in prevention programs, clinical substance abuse, or preventative abuse (counselors, treatment workers) that includes:

- Applicants who develop and/or present programs designed to inform a population on the use, abuse, and dependency of alcohol or other drugs.
- Initiation, design and/or review of education curriculums, which include alcohol/drug, related information (pharmacology, reasons for use, chemical dependency, etc.).
- Presentations to professionals, community organizations, youth in school, on chemical dependency.
- Preparation of media campaigns, including newspaper articles and public service announcements on prevention of substance abuse.
- Training of youth, parents, and professionals in assertiveness training ("saying no" strategies), communication skills, assertive discipline, decision-making, peer helping, employee assistance programming, and/or student assistance programming.
- Consultation with community organizations or other human service providers to develop prevention programming.
- Provide OWI classes to first-time offenders.
- Inform the public of the effects of chemical dependency on families.

### 713 Secondary or Higher Education

6 months' experience as a teacher/instructor, counselor, or administrator in a public or private secondary or higher education (college, university, or community college) setting which included:

- Analyzing and assessing work and education history of students and applying it to career goals
- Communicating with program participants of varying academic and vocational abilities.
- Participating in school-to-work programs in both the public and private sector.

### 749 Doctor of Veterinary Medicine

Possession of a Doctor's degree in veterinary medicine

### 920 Case Management

Bachelor's Degree with at least 30 semester hours including:

- Behavioral Science
- Education
- Health Care
- Human Services Administration
- Social Sciences

Applicant must also possess 1 year experience in delivery in one or in a combination of the following areas of human services:

- Chronic mental illness
- Developmental disabilities
- Intellectual disabilities

OR Applicant must have Iowa license to practice as a registered nurse AND the equivalent of 3 years nursing or human services experience.

**923 Targeted Case Management**

Bachelor's Degree with at least 30 semester hours including:

- Behavioral Science
- Education
- Health Care
- Human Services Administration
- Social Sciences

Applicant must also possess 1 year experience in delivery of human services as a Targeted (Medicaid) Case Manager in the combination of:

- Chronic mental illness
- Developmental disabilities
- Intellectual disabilities

OR Applicant must have Iowa license to practice as a registered nurse and the equivalent of 3 years nursing or human services experience.

**974 Asian and Pacific Islander Programs and Studies**

6 months' experience, 12 semester hours, or a combination of both in developing, implementing and operating programs for Asian and Pacific Islanders**.** This would include completing statistical research and writing statistical analysis, or delivering education and information for the Asian and Pacific Islander community, specifically including policy analysis, civic engagement, communication, economics, youth engagement or education.

## Elderly Services

**064 Medicare – Elderly Services**

6 months' experience at the technical level in Medicare program administration demonstrating knowledge of Medicare parts A, B, C and/or D.

**239 Geriatric Case Management**

6 months' experience, 12 semester hours, or a combination of both in the process of planning and coordinating care of the elderly to meet their long term care needs, improve their quality of life, and maintain their independence for as long as possible. Entails working with the elderly and their families in managing, rendering and referring various types of health and social care services.

**244 Gerontology**

6 months' experience in aging-related organizations with the emphasis on program operations and system design and services for the elderly and/or 12 semester hours in gerontology.

**248 Geriatric Nurse Practitioner**

6 months' experience as a registered nurse with additional education obtained through a master's degree program in nursing that prepares the nurse to deliver primary health care to elderly adults.

**612 Experience Working with Senior Adults**

6 months' experience working with senior adults in a residential or medical facility.

**704 Senior Health Insurance**

1 year experience, 12 semester hours, or a combination of both, in the following: Long-term care insurance or Medicare supplement insurance

## Emergency Preparedness/Homeland Security

**092 Emergency Exercises (State and Local)**
6 months' experience, 12 semester hours, or a combination of both in the development, facilitation, review or evaluation of emergency management/multi-hazard exercises. Applicants must document experience in one or more exercises from development of the exercise to include the After Action Report.

**179 Emergency Medical Services**
6 months' experience in one or in a combination of more than one of the following:

- Emergency Medical Technician or Paramedic
- EMT instructor/coordinator
- RN or LPN providing pre-hospital emergency medical care
- Physician's assistant if pre-hospital emergency medical care was provided

OR

12 semester hours in one or in a combination of more than one of the following:

- Emergency health care
- Emergency medical courses
- Advanced paramedic
- EMT-A or EMT-1
- Certification as an EMT/Paramedic

**190 Emergency Preparedness**
12 months' experience in emergency management with knowledge of the federal Code of Regulations relative to the federal Public Assistance Infrastructure Program.

**204 Emergency Planning (State and Local)**
6 months' experience, 12 semester hours, or a combination of both in the entire emergency planning process from meeting and working with partners to developing and writing the plan to working back through an approval process with the partners. Knowledge of emergency management and the systems and processes employed in Response, Recovery, Mitigation and Preparedness are essential.

**205 Homeland Security or Emergency Management**
6 months' experience, 12 semester hours, or a combination of both in technical and administrative knowledge of Homeland Security or Emergency Management functions, such as telecommunications or radioactive state-of-the-art equipment and systems activated because of a terrorist or natural disaster.

**206 Homeland Security or Emergency Management Operations**
6 months' experience in disaster operations which required knowledge of Homeland Security or Emergency Management activities related to terrorism or natural disaster response, recovery, protection (physical security), detection (intelligence), prevention (protective action recommendations), and deterrence (critical asset assessments). Experience would have also provided the ability to operationalize plans, guidebooks, and procedures in response to Homeland Security threats and natural disasters.

OR

12 semester hours in the areas below or in a combination of the areas below:

- Law enforcement
- Health
- Emergency medical
- Fire
- Hazardous materials
- Military
- Emergency management
- Other related disciplines which focus on how to effectively manage resources (personnel and equipment), recommend an emergency response course of action, and protective action recommendations

Looking for disaster operations field experience or knowledge dealing with multi-agency coordination of the Incident Command Structure.

**214 Risk Management – Homeland Security**

6 months' experience, 12 semester hours or a combination of both in Risk Management - Homeland Security. Applicants must be familiar with all aspects of the risk formula as defined by the US Department of Homeland Security (threat x vulnerability x consequence) to be able to:

- Use risk assessment methodologies to identify vulnerabilities in critical assets and/or critical infrastructure
- Use risk assessment information to reduce risk
- Communicate how threat information can be operationalized and applied to the risk formula for risk reduction purposes.

**215 Operations Security – Homeland Security**

6 months' experience, 12 semester hours or a combination of both in Operations Security (OPSEC). Applicants must be familiar with OPSEC concepts relating to the protection of information, protection of sensitive materials and functioning in a secure environment, which involves the following:
Identifying protected information
Determining threats to protected information
Evaluating information vulnerabilities
Estimating the risk of compromise

**729 Business Continuity/Disaster Recovery**

6 months' experience, 12 semester hours, or a combination of both in planning for continuation of critical business functions in the event of a disaster.

**734 Security Program Development and Implementation**

6 months' experience in developing and implementing a security program for a business, public or private agency.

**990 Cyber Security Planning**

A minimum of 18 months of full-time work experience in cyber security planning at a professional level that included the following major functions: participating in and leading a company-/agency-wide cyber security planning program including the identification of cyber security risks, development of prevention and response plans to minimize cyber-attack damages including mass care and consequences management, and the development of continuation of business operation plans; participating in national cyber security planning initiatives and exercises; responding to and participating in the recovery work from cyber security incidents; and working across governments, private sectors, and non-profit organizations collaboratively on cyber security planning activities and plans for response.

## Engineering and Technology

**007 Agricultural Engineering**

6 months' experience, 12 semester hours, or a combination of both including knowledge in one or in a combination of the following areas: machinery and power systems, structural design, mechanical analysis or ventilation, and climate control.

**027 Petroleum Engineering**

6 months' experience, 12 semester hours, or a combination of both. Petroleum engineering is a field of engineering concerned with the activities related to the production of hydrocarbons, which can be either crude oil or natural gas.

**028 Nuclear Engineering**

6 months' experience, 12 semester hours, or a combination of both. Nuclear engineering is the branch of engineering concerned with the application of the breakdown (fission) as well as the fusion of atomic nuclei and/or the application of other sub-atomic physics, based on the principles of nuclear physics. In the sub-field of nuclear fission, it particularly includes the interaction and maintenance of systems and components like nuclear reactors, nuclear power plants, and/or nuclear weapons.

# Categorical Selective List

**029 Energy Engineering**
6 months' experience, 12 semester hours, or a combination of both. Energy engineering is a broad field of engineering dealing with energy efficiency, energy services, facility management, plant engineering, environmental compliance and alternative energy technologies

**030 Telecommunications Engineering**
6 months' experience, 12 semester hours, or a combination of both. Telecommunications engineering is a discipline that brings together electrical engineering with computer science to enhance telecommunication systems. A telecommunication engineer is responsible for designing and overseeing the installation of telecommunications equipment and facilities, such as complex electronic switching systems, copper wire telephone facilities, and fiber optics.

**031 Engineering Economics**
6 months' experience in calculating the economic value, life cycle cost and benefit/cost ratio of constructing, operating, maintain and decommissioning of utility plant and facilities. Fundamentally, engineering economics involves formulating, estimating, and evaluating the economic outcomes when alternatives to accomplish a defined purpose are available.

**032 Valuation Engineering**
6 months' experience in determining the fair market value of utility infrastructure, including how long the plant can reasonably be expected to operate at a fair and reasonable price. Value engineering (VE) is a systematic method to improve the "value" of goods or products and services by using an examination of function. It is a primary tenet of value engineering that basic functions be preserved and not be reduced as a consequence of pursuing value improvements.

**033 Depreciation Engineering**
6 months' experience in determining appropriate depreciation rates, including knowledge of various depreciation methods used for utility infrastructure investment.

**034 Cost of Service Engineering**
6 months' experience in calculating the cost of service for a utility company, with a focus on infrastructure investment. Cost of Service studies are a critical tool in managing a healthy utility.

**035 Engineering**
6 months' experience, 12 semester hours, or a combination of both in the application of scientific, economic, social, and practical knowledge in order to invent, design, build, maintain, research, and improve structures, machines, devices, systems, materials and processes.

**093 Chemical Engineering**
6 months' experience, 12 semester hours, or a combination of both in the mass production and knowledge of the processes involved in the mass production of chemicals.

**097 Civil Engineering**
6 months' experience, 12 semester hours, or a combination of both in one or more of the following:

- Survey crew
- Construction inspector
- Professional civil engineer

Must be able to read blueprints, plans, and/or specifications.

**176 Electrical Engineering**
6 months' experience, 12 semester hours, or a combination of both in the branch of engineering that deals with the technology of electricity, especially the design and application of circuitry and equipment for power generation and distribution, machine control, and communications.

# Categorical Selective List

### 182 Environmental Engineering

6 months' experience, 12 semester hours, or a combination of both in the area of engineering that is centered on the technology concerned with the reduction of pollution, contamination, and deterioration of the surroundings in which humans live.

### 223 Construction Engineering

6 months' experience, 12 semester hours, or a combination of both in the professional discipline that deals with the designing, planning, construction, and management of infrastructures such as highways, bridges, airports, railroads, buildings, dams, and utilities.

### 264 Heating, Ventilation, and Air Conditioning Engineer

12 semester hours coursework in the HVAC- related field. General courses in heat transfer, fluid mechanics, machine design, thermodynamics, and other related fields should not be counted toward this selective unless the coursework was included as part of an HVAC minor or specialty. Qualifying courses include:

- Air or hydronic distribution systems design
- Building energy analysis
- HVAC
- Control systems design and analysis

OR

6 months' experience in one or in a combination of more than one of the following:

- HVAC design
- Demand side management analysis and implementation
- Cogeneration
- Valve engineering
- Variable frequency drive
- Preventative/predictive maintenance
- Cooling tower technology
- Thermal storage systems
- Energy
- Management systems
- Codes and standards
- Water chemistry
- Biomass
- Wind or solar power

### 311 Industrial Engineering

6 months' experience, 12 semester hours, or a combination of both in the branch of engineering that deals with the production of industrial goods, especially by the design of efficient plants and procedures, and the management of materials, energy, and labor.

### 394 Mechanical Engineering

6 months' experience, 12 semester hours, or a combination of both in the branch of engineering concerned primarily with the industrial application of mechanics and with the production of tools, machinery, and their products.

### 650 Sanitary Engineering

6 months' experience, 12 semester hours, or a combination of both in the engineering discipline concerned with the improved sanitation of human communities – such as assuring a supply of healthy drinking water, treatment of waste water and removing garbage from inhabited areas.

### 662 Structural Engineering

6 months' experience, 12 semester hours, or a combination of both in the field of engineering that deals with buildings, non-buildings or machinery or any item where structural integrity affects the item's function or safety.

# Categorical Selective List

## Fine Arts

**015 Art**
6 months' experience, 12 semester hours, or a combination of both. The instruction of others and developing/supervising projects requiring art could be included.

**109 Curator – Museum Management**
6 months' experience, 12 semester hours, or a combination of both in the overseeing and management of a museum

## History and Archeology

**012 Archeology**
6 months' experience, 12 semester hours, or a combination of both. Archeology is a main branch of anthropology and refers to the study of past and current cultures through the study of artifacts.

**013 Architectural History**
6 months' experience, 12 semester hours, or a combination of both. Architectural history refers to the field of study of architectural style which includes the theoretical basis of design and the evolution of design vocabularies and construction techniques.

**277 History**
6 months' experience, 12 semester hours, or a combination of both where a knowledge of history and the ability to share/apply that knowledge were major competencies required by the job and where history was in some way applied as a major job function such as:

- Historian
- Archivist
- History teacher (where the bulk of the time was spent teaching history)
- History professor or instructor

## Language

**025 American Sign Language (ASL)**
6 months' experience in the actual using of American Sign Language to translate messages to others, train and supervise other translators/interpreters, or educate others on the role of interpreters.

**610 Serbo-Croatian Language Fluency**
Possession of the ability to speak, read, and write Servo-Croatian fluently.

**863 Spanish Language (Customer Service)**
The ability to understand, speak, read, and write Spanish to provide service to Spanish speaking customers.

**866 Spanish Language Fluency**
Possession of the ability to speak, read, and write Spanish fluently.

**867 Arabic Language Fluency**
Possession of the ability to speak, read, and write Arabic fluently.

**869 English Language Fluency**
Possession of the ability to speak, read, and write English fluently.

**878 Bi-lingual**
Possession of the ability to understand, speak, read, and write a second language (other than English).

**897 Laotian Language (Customer Service)**
The ability to understand, speak, read and write Laotian to provide services to Laotian customers.

**939 Burmese Language**
Possession of the ability to speak, read, and write Burmese fluently including such dialects as Karen, Karenni, and Chin.

## Law and Government/Policy

**047 Legislative Liaison**
12 months' experience in professional level staff work for a legislative body or legislator at state or federal level; prior service as a legislator at the state or federal level or prior legislative/lobbying experience. Interns, pages, or those performing clerical work do not qualify under this selective.

**336 Law Enforcement**
1 year experience.

**339 Jailer/Jail Administration**
6 months' experience, 12 semester hours, or a combination of both.

**353 Law**
6 months' experience involving:

- Contract Law
- Administrative law
- Legal research and writing
- Corporate law/corporate structure
- Public law

OR

12 semester hours covering coursework in:

- Paralegal
- Law
- Pre-law

**354 Law Degree**
Possession of a law degree from an accredited institution.

**355 Law Enforcement (Includes Investigating Criminals)**
6 months' experience, 12 semester hours, or a combination of both.

**373 Legislative Assistant**
6 months' experience monitoring and tracking legislation for a legislator or state agency, inclusive of bill reviews and fiscal note review, as well as preparing both oral and written responses to requests for information; prior experience as a legislative assistant or intern at the state or federal legislative level, or prior experience working with lobbyist.

**521 Paralegal/Legal Assistant**
6 months' experience, 12 semester hours, or a combination of both in research and analysis. Secretary or clerical work in a law office does not count towards the selective.

**720 Policy Development**
6 months' experience, 12 semester hours, or a combination of both in the development of written documents that will create policies, standards, and procedures.

**970 Elections**
1 year of experience in city, county, state, or federal elections offices. The following should not qualify as experience for the selective:

- Campaigning
- Polling precinct volunteer
- Political science coursework

## Mechanical

**024 Air Conditioning (Heating/Refrigeration)**
6 months' experience, 12 semester hours, or a combination of both in one or in a combination of the following: Testing/repairing parts, installing units, communicating to customers repair issues; teaching others how to test, repair, install units, and communicate issues to customers.

**148 Diesel Engine Mechanic**
6 months' experience, 12 semester hours, or a combination of both in the maintenance or repair of diesel engines. This could also refer to the teaching of others how to maintain or repair diesel engines.

**315 Industrial Paint (Pressurized Spray Equipment)**
6 months' experience, 12 semester hours, or a combination of both.

## Medicine/Dentistry/Health

**116 Certified Nurse Aide/Orderly**
6 months' experience as a CNA.

**179 Emergency Medical Services**
6 months' experience in one or in a combination of more than one of the following:

- Emergency Medical Technician or Paramedic
- EMT instructor/coordinator
- RN or LPN providing pre-hospital emergency medical care
- Physician's assistant if pre-hospital emergency medical care was provided

OR

12 semester hours in one or in a combination of more than one of the following:

- Emergency health care
- Emergency medical courses
- Advanced paramedic
- EMT-A
- EMT-1
- Certification as an EMT/Paramedic

**183 Environmental Health**
6 months' experience, 12 semester hours or a combination of both in the branch of public health that is concerned with all aspects of the natural and built environment that may affect human health.

**185 Epidemiology**
6 months' experience, 12 semester hours, or a combination of both in epidemiology, which involves:

- The surveillance for respiratory diseases, vector-born diseases, enteric diseases, antimicrobial-resistant agents, or other infectious or non-infectious diseases
- The development of protocols and procedures for data collection and analysis, ongoing analysis of data using a variety of databases and statistical analysis programs
- The development and dissemination of written reports, graphs, tables, etc.

### 225 Dental Hygienist

Possession of an active license, as issued by the Iowa Dental Board, to practice as a Dental Hygienist in the State of Iowa.

### 247 Physical Activity

6 month's experience, 12 semester hours, or a combination of both in exercise science, physiology, kinesiology, physical education, sports management, athletic training, recreation, nutrition, health education, physical activity promotion, healthy lifestyle management, or a closely-related field. Possession of Physical Activity in Public Health Specialist (PAPHS) certification will also meet this selective.

### 268 Health Administration

6 months' experience as an administrator, assistant administrator, or program manager in a hospital, nursing home, home health agency, public health agency, other health care organization, clinic, or other self-contained medical operation, which would include military installations or aboard ships. This experience should include:

- Responsibility for planning and managing a budget
- Developing policies/procedures
- Evaluating results
- Directing staff

### 273 Health Physics/Radiological Health

6 months' experience, 12 semester hours, or a combination of both in applying physics philosophies and principles to health issues and the care of persons being treated for cancer. Also applies to the quality assurance of equipment used in the diagnosis of diseases and injuries.

### 274 Health Planning

6 months' experience, 12 semester hours, or a combination of both in one or in a combination of more than one of the following:

- Mental health planning
- Nursing
- Health program administration
- Any area of health planning
- Public health education

### 275 HIPAA Compliance

6 months' experience, 12 semester hours, or a combination of both in monitoring regulatory requirements and compliance under the Health Insurance Portability and Accountability Act (HIPAA) law.

### 292 Hospital/Health Care Statistics and Reimbursement

6 months' experience, 12 semester hours, or a combination of both in health care industry technology and standards with emphasis on health care insurance, payment systems, and health care data processing requirements.

### 453 Nursing

6 months' experience, 12 semester hours, or a combination of both in:

- General professional nursing experience (which could have come from several different programs)
- Nursing education
- Licensed practical nurse experience and training

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This selective has a broader range of education and experience than the selectives for Registered Nurse. The applicant needs to have had some exposure to the field but does not necessarily have to be a registered nurse. Do not consider less technical backgrounds such as nurses' aide.

### 455 Nursing Education (Curriculum Evaluation)

6 months' experience, 12 semester hours, or a combination of both.

### 523 Pediatrics

6 months' experience, 12 semester hours, or a combination of both in the branch of medicine that deals with patients aged 18 or younger.

### 535 Public Health

6 months' experience, 12 semester hours, or a combination of both related to improving, maintaining, and protecting the general condition of health within society, either on a personal, institutional, organizational, or community basis. Experience may be gained from direct provision of health care or from other ancillary programs and support mechanisms such as government public health departments.

### 539 Psychiatric Nursing

6 months' experience, 12 semester hours, or a combination of both in nursing specifically in the area of psychiatry.

### 590 Radiological Health

6 months' experience, 12 semester hours, or a combination of both in the art and science of protecting human beings from injury by accidental exposure to radiation, as well as of promoting better health through beneficial applications of radiation.

### 893 Immunization/Vaccine Preventable Diseases

12 months' experience in the field of immunizations and vaccine preventable diseases that includes three or more of the following functions:

- Determining patient immunization status and recommended vaccines based upon the Advisory Committee on Immunization Practices (ACIP) recommended immunization schedules.
- Administering vaccines in a clinical setting.
- Conducting disease surveillance activities using knowledge of vaccine preventable diseases and control measures.
- Communicating benefits and risks of vaccinations, vaccine safety and potential adverse events.
- Storing and handling vaccines in a clinical setting.

### 899 Registered Dietitian

Registered as a dietician by the Commission on Dietetic Registration. Registration is given based on completion of requisite continuing education courses and payment of registration fees. When registered, the person is assigned an "R" number.

### 917 Registered Health Information Administrator (RHIA) or Technician (RHIT)

RHIA: Candidates must meet one of the following eligibility requirements for the RHIA examination:

- Have successfully met the academic requirements of a health information management (HIM) program at the baccalaureate degree level accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) or the qualifications of such a program at the candidate's graduation must have met the requirements of the designated accrediting authority for an accredited program; OR
- Have earned a certificate of completion from a health information management program at the baccalaureate level, plus have a baccalaureate degree from a regionally accredited college or university. The health information management program must be accredited by CAHIIM, or the qualifications of such a program at the candidate's graduation must have met the requirements of the designated accrediting authority for an accredited program; OR
- Have graduated from a health information management program approved by a foreign association with which there is an agreement of reciprocity.

RHIT: Candidates must meet one of the following eligibility requirements for the RHIT examination:

- Have successfully met the academic requirements of a health information management (HIM) program at the associate degree level accredited by the Commission on Accreditation for Health Informatics and Information

Management Education (CAHIIM) or the qualifications of such a program at the candidate's graduation must have met the requirements of the designated accrediting authority for an accredited program; OR

- Have graduated from a program for health information management approved by a foreign association with which there is an agreement of reciprocity; OR
- Have a certificate of completion in health information technology from the AHIMA Independent Study Program (ISP) and an associate's degree from an accredited college or university. Please Note: Although AHIMA no longer offers an ISP, the certificate of completion refers to those candidates who had previously graduated from this program.

**992 FrameworkLTC**
6 months' experience in using FrameworkLTC software product to perform pharmacy billing functions.

## Military

**894 Veteran Job Training Program**
A disabled veteran who satisfactorily completes a federally funded job training program approved by the United States Department of Veterans Affairs. This must be within the classification and agency for which the disabled veteran is to be non-competitively hired.
*Note: This selective is to be used to facilitate noncompetitive appointments for disabled veterans in accordance with Iowa Code 8A.402(2)(f)(3)(c).*

**895 Veteran**
A person who served in the active military, naval, or air service, and who was discharged or released therefrom under conditions other than dishonorable.

**896 Disabled Veteran**
A person who was discharged or released from military service with a service-connected disability recognized through the Veterans Administration.

## Personnel and Human Resources

**026 Organizational Development**
6 months' experience, 12 semester hours, or a combination of both in organizational development at the professional or managerial level that include at least one of the following major functions: Organizational analysis and design; Change and transition management; Performance management systems; Leadership and team development

**112 Civil Rights/Affirmative Action**
6 months' experience in a capacity directly related to the provision of civil rights/affirmative action guidance or assistance to the public or clients, generally found in some level of government, in a non-profit service organization, or in a law firm specializing in this type of law. Application must demonstrate awareness of civil rights/affirmative action laws and public policies.

**193 Employment Service Programs**
6 months' experience, 12 semester hours, or a combination of both in recruiting customers to utilize services provided by federal, state and/or local governments, private companies, or non-profit agencies involved in economic development, business expansion and worker recruitment.

**202 Human Resource Development**
6 months' experience, 12 semester hours, or a combination of both including: employee training, employee career development, performance management and development, coaching, mentoring, succession planning, and organization development.

# Categorical Selective List

### 257 Career Development Counseling

6 months' experience at the high school or college level or in the public or private sector such as Iowa Workforce Development or an employment agency. In the case of the latter, must have experience analyzing and assessing applicants' work and education history and applying it to career goals.

- Must possess broad knowledge of postsecondary education and/or job training infrastructure.
- Must be able to communicate with program participants of varying academic and vocational abilities

### 295 Human Resources or Business Administration (Degree Only)

Degree in Human Resources or Business Administration

### 313 Industrial Hygiene

6 months' experience, 12 semester hours, or a combination of both in the anticipation, recognition, evaluation, control and prevention of hazards from work that may result in injury, illness, or affect the well-being of workers.

### 356 Labor Relations

6 months' professional experience, 12 semester hours in college level labor relations coursework, or a combination of both involving:

- Representing management or the union in negotiations
- Representing management or unions before labor relations administrative agencies such as NLRB, PERB, etc. at the state or federal level.
- Representing management, the union or the employee in disciplinary proceedings
- Labor contract administration providing advice to supervisors and managers or union officials
- Work as hearing officer or mediator for a labor relations agency at the federal or state level such as NLRB, FMCS, PERB

### 524 Personnel

6 months' experience in providing human resource consultation and direction for an organization. Experience should also be in one or more of the following areas: developing agency personnel policies, approving personnel transactions, negotiating labor contracts, training personnel, recruiting and retention of personnel.

### 649 Safety Programs/Workers' Compensation

12 months' experience involving responsibility for:

- Planning
- Promoting
- Coordinating
- Enforcing
- Carrying out a safety workplace program

### 703 Lean Methodology

Six months' experience facilitating teams using Lean methodology, tools and strategies that included the following major functions:

- Project selection, the establishment of project priorities and objectives and selection of team members
- Change and transition management
- Leadership and team development
- Facilitation of cross-functional teams through complex process changes using Kaizen, Design for Lean, 5S or other Lean methodologies
- Project status monitoring

### 736 Business Process Improvement

Successful candidates must possess the equivalent of 6 months' full-time experience leading business process improvement events, utilizing Kaizen and other continuous process improvement techniques.

### 752 Vocational Rehabilitation

6 months' experience, 12 semester hours, or a combination of both that specifically relates to employment and training services for individuals with disabilities. That knowledge base will include an awareness of the unique needs of this population, laws relating to discrimination or reasonable accommodations, assistive technology, and an understanding of employment and training systems and services, especially as provided in Iowa.

### 904 Applicant Selection

A Master's degree in industrial/organization psychology or 6 months' experience in the development and application of employee selection devices which included the following:

- Conducting and documenting job analysis of essential functions and the competencies (knowledge, abilities, skills, and personal characteristics) required to do the work of jobs.
- Constructing education and experience rating devices, assessments, applicant questionnaires, and other applicant selection and related scoring devices.
- Knowledge of applicant selection theories, methodologies, and techniques.

### 927 Human Resources Information Systems

6 months' experience in the use of HRIS which is an information system that provides a single, centralized view of the data that a human resource management (HRM) or human capital management (HCM) group requires for completing human resource (HR) processes.

### 980 Strategic Planning

6 months' experience, 12 semester hours, or a combination of both. Generally, an administrative position (mid to upper level of the management team) is assigned this as one function of their overall job. However, there are some specialists who deal only in strategic planning. Some colleges and universities may now carry this as a major or area of emphasis as part of their business administration or public policy programs. For experience to count, the applicant must have had the responsibility either for coordinating or developing the organization's strategic plan. Sometimes an administrative assistant-type is responsible for a lower level of coordination, i.e., distributing information to managers, collecting what they develop, and putting it into one document; that is not what is sought here. This has to be experience to the point that the individual knows the following:

- What a good strategic plan looks like
- How to prepare a plan
- How to monitor progress and ancillary planning
- How to speak knowledgably for the organization about the plan

## Production and Processing

### 357 Letter-Press Printing

6 months' experience in a technique of relief printing using a printing press.

### 440 Commercial Printing/Direct Customer Service

6 months' experience, 12 semester hours, or a combination of both, in commercial printing, which includes the reproduction of text and images carried out as an essential part of publishing and transaction printing; and direct customer interface, which includes two-way exchanges designed to understand customer needs and anticipate customer problems.

### 483 Offset Printing

6 months' experience in a commonly used printing technique in which an inked image is transferred (or "offset") from a plate to a rubber blanket, then to the printing surface.

### 532 Printing

6 months' experience, 12 semester hours, or a combination of both.

# Psychology

### 114 Chronic Mental Illness

A minimum of 1 year of full-time (or equivalent part-time) experience in delivering or coordinating services for adults with a persistent mental and emotional disorder that seriously impairs their functioning relative to such primary aspects of daily living as personal relations, living arrangements, or employment. This would include, but would not be limited to:

- Positions such as case managers and nurses affiliated with community support programs at community mental health centers
- Residential counselors and group home parents in community alternative living programs as well as residential treatment workers, nurses, activities specialists, and other treatment staff who work at state MHIs (Cherokee, Independence, Clarinda, and Mt. Pleasant).

Experience in an outpatient setting should not be counted toward this selective, unless such experience can be demonstrated to have been with clients with chronic mental illness.

### 115 SED (Seriously Emotionally Disturbed)

6 months' experience, 12 semester hours, or a combination of both in the delivery or coordination of services to seriously emotionally disturbed children. Children with a serious emotional disturbance are persons: From birth to age 18, who currently, or any time, during the past year have had a diagnosable, mental, behavioral, or emotional disorder of sufficient duration to meet diagnostic criteria specified within DSM-V that resulted in a function impairment which substantially interferes with or limits the child's role or functioning in family, school, or community activities.

### 146 Disabilities

6 months' experience, 12 semester hours, or a combination of both in one or in a combination of the following:

- Deaf education
- Deaf counseling
- Special education
- Intellectual disability
- Disability counseling
- Any experience dealing with the housing, transportation, accessibility, education, employment or advocacy for mentally or physically handicapped individuals.

### 280 Human/Social Services Programs

6 months' experience, 12 semester hours, or a combination of both directly related to human/social services. Experience generally obtained from either some level of government organization or a non-profit organization delivering these services. Must demonstrate exposure to the basic concepts of human/social services and related policies and procedures. Programs include those traditionally under the purview of the Department of Human Services, such as but not limited to:

- Child and family welfare
- Medicaid
- Entitlement programs
- Income maintenance
- Mental health
- Development disabilities
- Child support recovery

### 397 Mental Health

6 months' experience in providing service, treatment or assessment to those affected by mental health challenges, either in a private setting, group homes, local assistance agencies, or state or privately-run treatment institutions. Application must demonstrate that applicant has received a general orientation to the symptoms and treatment protocols for mental illness or public policies, procedures, or applicable laws related to the topic, or assistance programs for those affected by mental illness. Experience may come from public, private or non-profit organizations.

# Categorical Selective List

### 407 Psychology
Master's degree in psychology and one year professional psychology experience.

### 545 Intellectual Disability
A minimum of one year of full-time (or equivalent part-time) experience in delivering or coordinating services for persons with significantly sub-average general intellectual functioning existing concurrently with deficits in adaptive behavior manifested during the developmental period. This would include, but would not be limited to:

- House parents and counselors who work at group homes
- Sheltered work or work activities staff
- Treatment staff affiliated with the state resource centers at Glenwood and Woodward

### 546 Intellectual Disability and Developmental Disabilities
6 months' experience in an intellectual disability and developmental disabilities environment in order to identify measure and outcome indicators for ID/DD services and work with management to improve operational plans for clients [this was written for a position at the Woodward Resource Center in April 2003] - competencies gained from such experience would include the ability to design processes for the review of data, make decisions based on data and on trends and regulations in providing services and support to people with ID and DD; knowledge of types of and trends in services to support people with ID and DD; and knowledge of applicable rules and regulations that govern the operation of services provided to persons with ID and DD.

### 565 Social Science Research (Qualitative and/or Quantitative)
Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of developing and conducting social science research in fields of study including, but not limited to, education, psychology, sociology, and anthropology. Research may be both qualitative and/or quantitative and may be in one or in a combination of the above fields of study.

### 575 Licensure as a Psychologist in the State of Iowa
Possession of a license to practice Psychology in Iowa.

### 576 Quantitative Social Science Research
6 months' experience, 12 semester hours, or a combination of both in quantitative social science research in sociology, psychology, economics, government, public administration, or criminal justice, which includes the following:

- Developing research methodologies and data collection methods
- Using statistical software such as SPSS and SAS
- Calculating statistical data and analyzing and drawing conclusions from it
- Compiling statistical data and writing books and reports

### 580 Qualified Intellectual Disabilities Professional (QIDP)
Applicant must meet federal requirements for being a QIDP – Registration as a Nurse or a minimum of a Bachelor's Degree with a concentration of study in a human services area (e.g., Psychology, sociology, gerontology, anthropology, etc.) and at least one year of direct hands-on experience working with people who have intellectual disabilities.

### 919 Master's Degree in Psychology
Or above with no substitutions.

### 920 Case Management
Bachelor's Degree with at least 30 semester hours including:

- Behavioral Science
- Education
- Health Care
- Human Services Administration
- Social Sciences

Applicant must also possess 1 year experience in delivery in one or in a combination of the following areas of human services:

- Chronic mental illness
- Developmental disabilities
- Intellectual disabilities

OR Applicant must have Iowa license to practice as a registered nurse AND the equivalent of 3 years nursing or human services experience.

### 921 Applied Behavioral Analysis

6 months' experience in Applied Behavior Analysis (ABA) which is the process of systematically applying interventions based upon the principles of learning theory to improve socially significant behaviors to a meaningful degree, and to demonstrate that the interventions employed are responsible for the improvement in behavior.

### 922 Doctorate Degree in Psychology

Graduation from an accredited college or university with a doctorate degree in Psychology

### 923 Targeted Case Management

Bachelor's Degree with at least 30 semester hours including:

- Behavioral Science
- Education
- Health Care
- Human Services Administration
- Social Sciences

Applicant must also possess 1 year experience in delivery of human services as a Targeted (Medicaid) Case Manager in the combination of:

- Chronic mental illness
- Developmental disabilities
- Intellectual disabilities

OR Applicant must have Iowa license to practice as a registered nurse and the equivalent of 3 years nursing or human services experience.

### 934 Doctorate Degree in Psychology and License Eligible

Applicants must have a doctoral degree in psychology from a graduate program accredited by the American Psychological Association (APA). The specialty area of the degree must be consistent with the assignment for which the applicant is seeking employment. Applicants must have completed a professional psychology internship training program that has been accredited by the APA.

## Public Safety and Security

### 005 Crime Scene

12 semester hours of education, 6 months of full-time experience, or an equivalent combination of both in crime scene processing, including all of the following: the evaluation, searching, and documentation of crime scenes, and the collection and preservation of items of interest.

### 010 Amusement Rides – Inspection, Installation and Maintenance

6 months' experience in the inspection, installation, and maintenance of amusement rides.

### 096 Electronic Security Systems

6 months' experience performing technical installation, software monitoring and troubleshooting Video Surveillance Systems (VSS) primarily, which includes experience with either one of the following: Intrusion Detection Systems (IDS) or Access Control Systems (ACS). In order to qualify for this selective, applicants must clearly indicate the required detailed

experience and the name of the security system in use and the type of system it pertains to: Video Surveillance Systems (VSS), Intrusion Detection Systems (IDS) or Access Control Systems (ACS).

**270 Hazardous Waste**
6 months' experience in the disposal and proper handling of waste that poses a substantial or potential threat to public health or the environment

**387 Meat Inspection**
6 months' experience in the detection and destruction of diseased meat and/or contaminated meat, assurance of clean and sanitary handling and preparation, and minimization of microbiological contamination of meat.

**485 Dairy Inspection**
Minimum of 12 semester hours of education, six months experience, or a combination of both in the enforcement of sanitation requirements on dairy farms, in processing plants, dry milk plants, receiving and transfer stations (establishments where raw milk or cream is received for further transport).

**721 Risk Management**
6 months' experience, 12 semester hours, or a combination of both in weighing risks and identifies appropriate countermeasures to find an acceptable security and functionality compromise.

**722 Incident Response**
6 months' experience, 12 semester hours, or a combination of both including experience and ability to respond to intrusions and other incidents. Applicant may have certification in GIAC Certified Incident Handler, GIAC Certified Forensics Analyst, with knowledge in Symantec Ghost and The Coroner's Toolkit.

## Sales and Marketing

**238 Marketing Research**
6 months' experience, 12 semester hours or a combination of both in marketing research, which includes the following:

- Identifying the product's target audience, as well as its strengths, weaknesses, threats and opportunities;
- Understanding the threats and opportunities the product faces, taking advantage of the market, and setting realistic sales goals and objectives;
- Knowing the marketing objectives for product positioning, pricing, distribution, and other marketing purposes.
- Knowing basic market principles that includes the research of competitive pricing, industry trends, customer needs analyses and product life cycles.

**288 Horticulture**
6 months' experience, 12 semester hours, or a combination of both involving the production, processing, sales, or marketing of commercial fruits or vegetables.

**880 Marketing**
6 months' experience, 12 semester hours, or a combination of both in marketing. Candidates must demonstrate knowledge of the general methods, principles and practices of marketing, including professional-level experience in an area or in areas of marketing, e.g., promotions, public relations, event planning, advertising or other marketing-related discipline.

**898 Grocery Industry Operations**
12 months' experience in the grocery industry which includes at least 2 of the following major functions:

- Directing or coordinating daily grocery operations (i.e., trainings, inventory, pricing, customer service).
- Maintaining and/or supporting point of purchase equipment for electronic benefits transfer.
- Ensuring compliance with state and federal program regulations for food assistance programs such as the Supplemental Nutrition Program for Women, Infants and Children (WIC) or the Supplemental Nutrition Assistance Program (SNAP).

### 993 Customer Service with Market Sales Focus

12 months' experience serving as an inside sales and/or customer service representative with experience in at least three of the following areas:

- Attraction of potential customers by answering product and service questions;
- Management of customer orders from receipt through delivery/installation;
- Assisting customers with product selection utilizing product knowledge;
- Handling customer issues to ensure customer satisfaction;
- Performing outbound calls to inform customers of products and services

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## Social Work

### 141 Dependent Adult Abuse

6 months' experience working in the capacity of providing assistance to dependent adults. A dependent adult is defined as: 18 years of age or older; is wholly or partially dependent upon one or more other persons for care or support, either emotional or physical; has not established financial independence; has not been determined to be eligible as a person; would be in danger, if care or support is withdrawn.

### 655 Master's Degree in Social Work

Possession of a Master's Degree in Social Work from an accredited college or university.

### 656 Social Work

- 6 months' experience as a Social Worker or 6 months' experience in the following areas:
- Activities Specialist (in a therapeutic capacity)
- Youth Counselor
- Treatment Program professionals
- Psychologist and Psychology Assistant
- Drug Abuse and Correctional Counselor
- Probation/Parole Officer
- Vocational Rehabilitation Counselor
- School Counselor

### 663 Substance Abuse Programs

6 months' experience, 12 semester hours, or a combination of both in prevention programs, clinical substance abuse, or preventative abuse (counselors, treatment workers) that includes:

- Applicants who develop and/or present programs designed to inform a population on the use, abuse, and dependency of alcohol or other drugs.
- Initiation, design and/or review of education curriculums, which include alcohol/drug, related information (pharmacology, reasons for use, chemical dependency, etc.).
- Presentations to professionals, community organizations, youth in school, on chemical dependency.
- Preparation of media campaigns, including newspaper articles and public service announcements on prevention of substance abuse.
- Training of youth, parents, and professionals in assertiveness training ("saying no" strategies), communication skills, assertive discipline, decision-making, peer helping, employee assistance programming, and/or student assistance programming.
- Consultation with community organizations or other human service providers to develop prevention programming.
- Provide OWI classes to first-time offenders.
- Inform the public of the effects of chemical dependency on families.

### 754 Volunteer Coordinator

6 months' experience, 12 semester hours, or a combination of both including:

- Community organization

- Volunteer program recruitment
- Training
- Organization
- The child-welfare system.

**942 Victims' Advocacy Programs**
Six months of experience in the development, implementation or operation of programs intended to help victims of domestic violence, sexual assault, stalking or violent crime.

**986 Social Work Degree**
To be designated as a social worker, an individual must-

A.) Hold a graduate degree from a school of social work accredited or approved by the Council of Social Work Education or another comparable body; or
B.) Hold a Bachelor of Social Work degree from a college or university accredited or approved by the Council on Social Work Education or another comparable body.

The Council on Social Work Education's website contains a listing of programs currently accredited. Please refer to the following website: http://www.cswe.org/. To view the Federal Registry requirements 42 CFR 483 430, please visit the following website: http://www.ecfr.gov/cgi-bin/text-idx?rgn=div&&node=42:5.0.1.1.2.9.7.5.

## Sociology and Anthropology

**075 Minority Studies/Community Organization**
6 months' community organization work which must have involved the systematic treatment of problems and issues common to indigent or disadvantaged Americans. Experience not meeting the selective:

- Membership in an urban league or other organizations that does not involve working in indigent or disadvantaged American communities as described above
- Pastor or employee of the church in charge of youth activities or other programs for church members; these duties do not involve working with and for all persons in the community
- An activist or someone who leads sit-ins or protests is not participating in the resolution of problems and issues of indigent or disadvantaged Americans as previously described

**112 Civil Rights/Affirmative Action**
6 months' experience in a capacity directly related to the provision of civil rights/affirmative action guidance or assistance to the public or clients, generally found in some level of government, in a non-profit service organization, or in a law firm specializing in this type of law. Application must demonstrate awareness of civil rights/affirmative action laws and public policies.

**565 Social Science Research (Qualitative and/or Quantitative)**
Applicant should demonstrate a minimum of 6 months' experience, 12 semester hours, or a combination of both in the area of developing and conducting social science research in fields of study including, but not limited to, education, psychology, sociology, and anthropology. Research may be both qualitative and/or quantitative and may be in one or in a combination of the above fields of study.

**576 Quantitative Social Science Research**
6 months' experience, 12 semester hours, or a combination of both in quantitative social science research in sociology, psychology, economics, government, public administration, or criminal justice, which includes the following:

- Developing research methodologies and data collection methods
- Using statistical software such as SPSS and SAS
- Calculating statistical data and analyzing and drawing conclusions from it
- Compiling statistical data and writing books and reports

**580 Qualified Intellectual Disabilities Professional (QIDP)**Applicant must meet federal requirements for being a QIDP – Registration as a Nurse or a minimum of a Bachelor's Degree with a concentration of study in a human services area

(e.g., Psychology, sociology, gerontology, anthropology, etc.) and at least one year of direct hands-on experience working with people who have intellectual disabilities.

### 915 Women's Studies and Programs

6 months' experience, 12 semester hours, or a combination of both in developing, implementing and operating programs for women. This includes completing statistical research and writing statistical analysis, or delivering education and information on women's issues, specifically including policy analysis, civic engagement, communication, economics, youth engagement or education.

### 942 Victims' Advocacy Programs

Six months of experience in the development, implementation or operation of programs intended to help victims of domestic violence, sexual assault, stalking or violent crime.

## Telecommunications/Media-Mass Communications/Photography

### 072 Photography

12 semester hours of education, 6 months of full-time experience, or an equivalent combination of both in advanced photographic and video capture and processing techniques, including use of filters, both physical and digital, and use of related specialty imaging software.

### 147 Digital Network Communications

6 months' experience, 12 semester hours, or a combination of both in the installation, maintenance, repair, or cost analysis of digital network communications (i.e., telephone).

### 207 Editing

6 months' experience, 12 semester hours, or a combination of both in applying analysis and judgment to find and solve problems of grammar, spelling, punctuation, substance, format, organization, and style by altering, adapting, or refining content of publications, mass mailings, forms, or other material. Includes reviewing text for inconsistencies and rewriting text to improve accuracy, clarity, coherence, consistency, and effectiveness.

### 405 Media Communication

6 months' experience, 12 semester hours, or a combination of both in preparing and writing materials to disseminate information to the public through the media such as newspapers, TV/radio, etc. May also have dealt with reporters on a regular basis for news releases.

### 406 Mass Communication

12 semester hours of coursework involving: journalism, public relations, graphics, or communicative arts. 6 months' experience including: writing, editing, layout, design and publishing of printed materials plus responsibility for disseminating information about the activities of an organization through newspapers, radio, television, periodicals, pamphlets, brochures, and other media. Experience could also involve responsibility for advising management on the public relations implications of management decisions or serving as spokesperson for the organization to media representatives.

### 416 Multimedia Specialist

6 months' experience, 12 semester hours, or a combination of both in each of the following:

- General office and presentation software (e.g., Microsoft Office)
- Web content management system software (e.g., Drupal, WordPress)
- Web development software/languages (e.g., HTML, JavaScript)
- Graphic design software (e.g., Adobe InDesign, Adobe Photoshop, Adobe Illustrator)
- Video production software (e.g., Adobe Premiere, Avid DV Express, Vegas Video)
- Streaming media production (e.g., Real Player/Real Producer, Helix, Windows Media Services, TMPGEnc)
- CD and DVD creation software (e.g., Nero)

# Categorical Selective List

**542 Photogrammetry**
6 months' experience, 12 semester hours, or a combination of both in the science of making measurements from photographs.

**561 Social Media Management**
Applicant should demonstrate six months' employment experience working with various types of social media including all of the following: Twitter, Facebook, Flickr, Instagram and YouTube.

**701 Teleprocessing/Data Communications**
6 months' experience, 12 semester hours, or a combination of both.

**982 Telecommunications Voice Switching Systems**
6 months' experience or 12 semester hours or a combination of both with managing and maintaining telecommunications voice switching equipment including, but not limited to, PBX, voicemail, ACD, telephone key systems, digital recording systems, tandem switches and related services for those.

**983 Telecommunications Network Operations**
6 months' experience, 12 semester hours or a combination of both with network operations centers, which can also be called network management centers or network support centers but not customer call centers. This is a technical center that reviews network alarms and handles troubleshooting and dispatching of any field staff.

**991 Broadcast Journalism**
6 months' experience, 12 semester hours, or a combination of both in the field of news and journals which are "broadcast", that is, published by electrical methods, instead of the older methods, such as printed newspapers and posters. Broadcast methods include radio (via air, cable, and Internet), television (via air, cable, and Internet).

**994 Telecommunications Switching Systems (including Transmission and Circuits)**
6 months' experience, 12 semester hours, or a combination of both in:

- Design, provisioning, implementation, and coordination of systems, networks and services.
- Design of circuit layout and equipment module additions Asynchronous Transfer Mode (ATM).
- Frame Relay and other cell or packet switching services.
- Experience and/or education reflect knowledge of the following:
- Telephony
- Digital Theory and Digital Hierarchy
- Physical principles of telecommunications systems
- Packet switching
- Virtual circuit theory

**995 Outside Plant Fiber Cable Constructions**
6 months' experience, 12 semester hours, or a combination of both involving:

- Quality control inspection related to aerial and buried fiber cable as part of ensuring system readiness
- Developing alternative recommended routes for new cable placement
- Developing and maintaining outside plant records, drawings, route information, permit packages, project plans, bid proposals, and generation of as-built drawings

Experience and/or education reflect:

- Skill in the use of cable locating equipment and equipment associated with civil engineering for outside plant projects

**996 Telecommunications Engineering Design**
6 months' experience, 12 semester hours, or a combination of both involving:

- Designing circuit layout and equipment module additions.
- Drafting records and work order detail documentation to support installation of circuits.
- Forecasting equipment needs to meet customer delivery.

- Work tasks concerned with designing and implementing new and existing fiber optic- based telecommunications systems and networks providing state-of-the-art technology and service offerings including voice data and video (emphasis on interactive distance learning).

Education and experience reflects ability to:

- Read and interpret equipment and site drawings.
- Use Microsoft Windows Excel, Word, and Visio as well as basic database and spreadsheets.

Must also have:

- Knowledge of Telephony, Digital Theory, and Digital Hierarchy
- Knowledge of Voice and Data Circuit and Video Technology

**999 Telecommunications Technical Services**

6 months' experience, 12 semester hours, or a combination of both with familiarity in technicalities of communications through the following:

- Radio
- Telephone
- Telegraph
- Television

Experience and/or education reflect:

- Knowledge of online systems (RFS, MailHub, etc.)
- Windows
- Word/internet
- Excel
- PowerPoint
- Visio

## Theology

**892 Roman Catholic**

Applicant does not have to be an ordained priest to meet selective – can be a layperson of Catholic faith.

## Therapy and Counseling

**146 Disabilities**

6 months' experience, 12 semester hours, or a combination of both in one or in a combination of the following:

- Deaf education
- Deaf counseling
- Special education
- Intellectual disability
- Disability counseling
- Any experience dealing with the housing, transportation, accessibility, education, employment or advocacy for mentally or physically handicapped individuals.

**257 Career Development Counseling**

6 months' experience at the high school or college level or in the public or private sector such as Iowa Workforce Development or an employment agency. In the case of the latter, must have experience analyzing and assessing applicants' work and education history and applying it to career goals.

- Must possess broad knowledge of postsecondary education and/or job training infrastructure.
- Must be able to communicate with program participants of varying academic and vocational abilities

**397 Mental Health**

Experience or education related to providing service, treatment or assessment to those affected by mental health challenges, either in a private setting, group homes, local assistance agencies, or state or privately-run treatment

institutions. Application must demonstrate that applicant has received a general orientation to the symptoms and treatment protocols for mental illness or public policies, procedures, or applicable laws related to the topic, or assistance programs for those affected by mental illness. Experience may come from public, private or non-profit organizations.

**702 Therapeutic Recreation or Recreation Rehabilitation**
6 months' experience, 12 semester hours, or a combination of both.

## Transportation

**052 Transportation Planning, Highway Route Location, Traffic Analysis, and Interchange Justification**
6 months' experience, 12 semester hours, or a combination of both in one or in a combination of the following:

- Interchange planning, design and operation including the development of interchange concepts, configurations, geometric interchange layouts and capacity/operational analyses of existing and proposed interchanges;
- Preparation and finalization of engineering pre-location and location studies and evaluations for the determination and approval of a highway route location;
- Use of existing and forecasted traffic data to analyze highway facilities for needed improvements, and
- Reviewing Interchange Justification Reports for technical accuracy and compliance with applicable guidelines and policies.

Applicant must have knowledge of personal computers, CADD and civil engineering software, and must clearly state on the application that they possess experience in Microstation, GEOPAK and GEOPAK Corridor Modeler.

**062 Bridge Design**
6 months' experience, 12 semester hours, or a combination of both in the environmental, safety, and logistical issues of the design of bridges.

**150 Driver Services**
6 months' experience in issuing driver licenses, processing records related to driver licensing, law enforcement, and/or performing drive tests according to applicable laws, rules and regulations.

**282 Highway Construction**
6 months' experience, 12 semester hours, or a combination of both in the construction of highways.

**283 Highway Design**
6 months' experience, 12 semester hours, or a combination of both in the design of highways.

**284 Highway Maintenance**
6 months' experience, 12 semester hours, or a combination of both in the maintenance of highways.

**285 Highway Materials**
6 months' experience, 12 semester hours, or a combination of both in the use of materials that highways are built/constructed with.

**595 Regional Planning**
6 months' experience, 12 semester hours, or a combination of both in developing plans and programs for utilization of land and physical factors of counties (one or more) for residential, commercial, industrial and community uses. Recommendations affect land-use, public utilities, community factors, housing and transportation. This may include rural areas.

**600 Right of Way Design**
6 months' experience, 12 semester hours, or a combination of both in the design of the rights of way along interstate and primary highways. "Rights of way" refers to those traffic issues such as the right to go before another; precedence in passing granted to one over another.

**709 Transportation Planning**

6 months' professional experience, 12 semester hours, or a combination of both including:

- Highway Planning
- Public Transit Planning
- Railroad Planning
- River Planning
- Aeronautics Planning

## Certifications/Licenses/Permits

**038 CDL – Air Brakes Unrestricted**

**087 Certified Professional Coder**

Certified Professional Coders read health treatment information and assign codes to services/procedures so the information can be submitted to insurance companies, Medicare, or Medicaid.

**088 Registered Health Information Technician (RHIT)**

Registered Health Information Technician (RHIT) is a professional certification administered by the American Health Information Management Association (AHMA) in the United States. Passing the exam results in licensure as a health information technician.

**089 Certified Addiction Counselor in Iowa**

**117 Commercial Learner's Permit (CLP)**

Possession of a valid Commercial Learner's Permit upon hire.

**118 CDL – Class B**

Possession of a Class B Commercial Driver's License (CDL) at time of hire.

**120 CDL – Class D**

Possession of a Class D Commercial Driver's License (CDL) at time of hire.

**200 Possession of a valid Iowa Teaching Certificate**

**217 Automotive Service Excellence Certification (ASEC)**

Applicants must possess an Automotive Service Excellence Certification in heavy trucks and heavy equipment as issued by the National Institute for Automotive Service Excellence.

**212 Executive Mail Center Manager (EMCM) Certification**

Successful completion of the Executive Mail Center Manager program as offered by the United State Postal Service. For a full description of the program visit: http://about.usps.com/postal-customer-council/get-business-mail-training.htm

**221 Airport Firefighter Training**

Applicants who qualify under this selective must possess International Fire Service Accreditation Congress [IFSAC] certification in ALL of the following: Airport Firefighter, Fire Inspector II, Fire Instructor II, Fire Officer II, Hazardous Materials-Technical Level, and Hazardous Materials Incident Command AND be certified as an Iowa Certified Emergency Medical Services Instructor Trainer.

**252 IOWA/NCIC Certification**

Certification in the Iowa Online Warrants and Articles (IOWA) Criminal Justice Information System and National Crime Information Center (NCIC).

# Categorical Selective List

### 386 Licensed Practitioner of the Healing Arts

Any of the following will qualify:

- A "Certified Psychiatric Mental Health Nurse Practitioner" who meets the requirements of a certified psychiatric mental health nurse and is eligible for certification by the American Nursing Association and is licensed by the State of Iowa to practice nursing as defined in Iowa Code chapter 152
- A "Psychologist" who is licensed to practice psychology in the State of Iowa pursuant to Iowa Code chapter 154B
- A "Social Worker" who is licensed under Iowa Code chapter 154C in activities directed at redeveloping, protecting, or restoring people's capacity for social functioning
- A "Mental and Family Therapist" licensed under Iowa Code chapter 154D
- A "Mental Health Counselor" licensed under Iowa Code chapter 154D

### 500 CDL – Passenger Endorsement

The endorsement required for those who drive a vehicle that is designed or used to transport 16 or more passengers, including the driver. This endorsement requires knowledge in the proper procedures for loading/unloading passengers; proper use of emergency exits, including push out windows; proper responses to such emergency situations as fires and unruly passengers; proper procedures at railroad crossings and drawbridges; and proper braking procedures.

### 577 Breastfeeding Promotion and Support

Possession of Certified Breastfeeding Educator (CBE) certification, Certified Lactation Counselor (CLC) certificate, or International Board Certified Lactation Consultant credential.

### 800 Social Security Administration Benefits Planner Certification

Must have completed approved Social Security Administration (SSA) Benefits Planner Training through the University of Missouri - Columbia, or other entity contracted specifically by SSA to provide this training. A certificate of completion must be submitted with the DAS-HRE application.

### 870 Licensed Audiologist

Licensed health-care professional specializing in identifying, diagnosing, treating and monitoring disorders of the auditory and vestibular system portions of the ear. Audiologists are trained to diagnose, manage and/or treat hearing, tinnitus, or balance problems.

### 871 License to Practice Law in the State of Iowa

License to practice law in the State of Iowa.

### 872 Registered Nurse

Licensure as Registered Nurse in the State of Iowa by the Iowa Board of Nursing or licensure as a Registered Nurse in accordance with the Nurse Licensure Compact Administrator's Agreement of the National Council of State Boards of Nursing. More information regarding the Nurse Licensure Compact Administrators agreement of the National Council of State Boards of Nursing is available at: Nurse Licensure Compact

### 873 Licensed Professional Engineer – Engineering and Land Surveying Examining Board

License as a professional engineer

### 874 Licensed Speech Pathologist

A licensed specialist who evaluates and treats patients with speech, language, cognitive-communication and swallowing disorders in individuals of all ages, from infants to the elderly. The requirements and process to be become licensed vary by state.

### 876 Licensed Professional Architect

License as a Professional Architect by Iowa Architectural Examining Board

### 890 Licensed Dietitian

6 months' experience as a nutrition specialist who holds a license to practice dietetics and nutrition services.

# Categorical Selective List

**918 Board Certified Behavior Analyst**
Possesses certification from the Behavior Analyst Certification Board. The applicant either has the certification, or does not. If additional information is required, see BACB website at: http://www.bacb.com/

**926 Braille Certification**
Certification in either the National Certification in Literally Braille (NCLB) or the National Certification in Unified English Braille (NCUEB).

**961 Iowa Certified Real Estate Property Appraiser**
Applicants must be certified as a residential real estate property appraiser in accordance with Chapter 543D.3, Iowa Code, and all administrative rules as prescribed by the Iowa Real Estate Appraiser Board. Applicants must state on the application that they possess the certification to be considered qualified.

**972 Iowa Certified General Real Estate Property Appraiser**
Applicants must be certified as a general real estate property appraiser, which includes residential and all other types of property in accordance with Chapter 543D.3, Iowa Code, and all administrative rules as prescribed by the Iowa Real Estate Appraiser Board. Applicants must state on the application that they possess the certification to be considered qualified.

**981 CDL Class A - Hazmat Certification and Tanker Endorsement**
Current possession of a CDL Class A license with Hazmat Certification and Tanker Endorsement.

**987 Certified Law Enforcement Officer**
Certified Law Enforcement Officer is a certification through the Iowa Law Enforcement Academy (ILEA) or a law enforcement training facility approved by ILEA.

**989 Certified Nurse Aide/Orderly**
Certified Nurse Aide/Orderly licensed with Iowa Nurse Aide Registry

## Educational Endorsements

Each selective below is defined as the possession of an educational license with the stated endorsement from the Iowa Board of Educational Examiners.

| Selective Number | Educational Endorsement Title |
|---|---|
| **A01** | **PK-3 Teacher, Regular Education/Special Education Endorsement** |
| **A02** | **K-6 Teacher/Elementary Classroom Endorsement** |
| **A03** | **PK-K Teacher, PreKindergarten - Kindergarten Classroom Endorsement** |
| **A04** | **K-12 English as a Second Language Endorsement** |
| **A05** | **PK-3 Teacher, PK-3 Classroom Endorsement** |
| **A06** | **PK-12 Talented and Gifted Endorsement** |
| **A07** | **5-12 Agriculture Endorsement** |
| **A08** | **5-12 Business-General Endorsement** |

# Categorical Selective List

| | |
|---|---|
| **A09** | **5-12 Business-Office Endorsement** |
| **A10** | **5-12 Business Marketing/Management Endorsement** |
| **A11** | **5-12 English/Language Arts Endorsement** |
| **A12** | **K-8 Spanish Endorsement** |
| **A13** | **5-12 Spanish Endorsement** |
| **A14** | **K-8 Health Endorsement** |
| **A15** | **5-12 Health Endorsement** |
| **A16** | **5-12 Family and Consumer Sciences-General Endorsement** |
| **A17** | **5-12 Industrial Technology Endorsement** |
| **A18** | **K-8 Mathematics Endorsement** |
| **A19** | **5-12 Mathematics Endorsement** |
| **A20** | **K-8 Music Endorsement** |
| **A21** | **5-12 Music Endorsement** |
| **A22** | **K-8 Physical Education Endorsement** |
| **A23** | **5-12 Physical Education Endorsement** |
| **A24** | **K-8 Reading Endorsement** |
| **A25** | **5-12 Reading Endorsement** |
| **A26** | **K-8 Science-Basic Endorsement** |
| **A27** | **5-12 Biological Science Endorsement** |
| **A28** | **5-12 Chemistry Endorsement** |
| **A29** | **5-12 Earth Science Endorsement** |
| **A30** | **5-12 General Science Endorsement** |
| **A31** | **5-12 Physical Science Endorsement** |
| **A32** | **5-12 Physics Endorsement** |
| **A33** | **5-12 American Government Endorsement** |

# Categorical Selective List

| | |
|---|---|
| **A34** | **5-12 American History Endorsement** |
| **A35** | **5-12 Economics Endorsement** |
| **A36** | **5-12 Geography Endorsement** |
| **A37** | **K-8 Social Studies Endorsement** |
| **A38** | **5-12 Sociology Endorsement** |
| **A39** | **5-12 World History Endorsement** |
| **A40** | **K-8 Speech Communications/Theatre Endorsement** |
| **A41** | **5-12 Speech Communications/Theatre Endorsement** |
| **A42** | **PK-8 Principal Endorsement** |
| **A43** | **5-12 Principal Endorsement** |
| **A44** | **PK-12 Superintendent & AEA Administrator Endorsement** |
| **A45** | **Professional School Counselor K-8 Endorsement** |
| **A46** | **Professional School Counselor 5-12 Endorsement** |
| **A47** | **K-12 School Teacher Librarian Endorsement** |
| **A48** | **PK-12 School Nurse Endorsement** |
| **A49** | **K-12 Reading Specialist Endorsement** |
| **A50** | **K-12 American Sign Language Endorsement** |
| **A51** | **Evaluator Approval Endorsement** |
| **A52** | **5-8 All Science Endorsement** |
| **A53** | **5-12 All Science Endorsement** |
| **A54** | **5-12 All Social Sciences Endorsement** |
| **A55** | **PK-12 Principal/PK-12 Special Education Supervisor Endorsement** |
| **A56** | **Evaluator (New) Endorsement** |
| **A57** | **K-8 Mildly Disabled Endorsement** |
| **A58** | **5-12 Mildly Disabled Endorsement** |

# Categorical Selective List

| | |
|---|---|
| **A59** | **PK-K Behavioral Disorders Endorsement** |
| **A60** | **K-8 Behavioral Disorders Endorsement** |
| **A61** | **5-12 Behavioral Disorders Endorsement** |
| **A62** | **PK-K Mental Disabilities Mild/Moderate Endorsement** |
| **A63** | **K-8 Mental Disabilities Mild/Moderate Endorsement** |
| **A64** | **5-12 Mental Disabilities Mild Moderate Endorsement** |
| **A65** | **PK-K Mental Disabilities: Moderate/Severe/Profound Endorsement** |
| **A66** | **K-12 Mental Disabilities: Moderate/Severe/Profound Endorsement** |
| **A67** | **K-8 Learning Disabilities Endorsement** |
| **A68** | **5-12 Learning Disabilities Endorsement** |
| **A69** | **PK-K Physically Handicapped Endorsement** |
| **A70** | **K-8 Physically Handicapped Endorsement** |
| **A71** | **5-12 Physically Handicapped Endorsement** |
| **A72** | **PK-K Hearing Impaired Endorsement** |
| **A73** | **K-8 Hearing Impaired Endorsement** |
| **A74** | **5-12 Hearing Impaired Endorsement** |
| **A75** | **Hearing Impaired Itinerant Endorsement** |
| **A76** | **PK-K Visually Impaired Endorsement** |
| **A77** | **K-8 Visually Impaired Endorsement** |
| **A78** | **5-12 Visually Impaired Endorsement** |
| **A79** | **Visually Impaired Itinerant Endorsement** |
| **A80** | **K-8 Multicategorical Resource Mild Endorsement** |
| **A81** | **5-12 Multicategorical Resource Mild Endorsement** |
| **A82** | **PK-K Early Child Special Education Endorsement** |
| **A83** | **PK-K Multicategorical Special Class With Integration Endorsement** |

# Categorical Selective List

| | |
|---|---|
| **A84** | **K-8 Multicategorical Special Class With Integration Endorsement** |
| **A85** | **5-12 Multicategorical Special Class With Integration Endorsement** |
| **A86** | **Speech/Language Teacher Endorsement** |
| **A87** | **K-8 Multicategorical Resource – Option 2 Endorsement** |
| **A88** | **5-12 Multicategorical Resource Option 2 Endorsement** |
| **A89** | **Itinerant Hospital/Home Services Endorsement** |
| **A90** | **PK-K Supervisor Special Education/Early Childhood Endorsement** |
| **A91** | **K-12 Supervisor Special Education/Instruction Endorsement** |
| **A92** | **5-12 Work Experience Coordinator Endorsement** |
| **A93** | **B-21 School Audiologist Endorsement** |
| **A94** | **B-21 School Psychologist Endorsement** |
| **A95** | **B-21 Speech Language Pathologist Endorsement** |
| **A96** | **Director Special Education Endorsement** |
| **A97** | **B-21 School Social Worker Endorsement** |
| **A98** | **Ages 5-21 Consultant: Mental Disabilities Endorsement** |
| **A99** | **Ages 5-21 Consultant: Behavioral Disorders Endorsement** |
| **B01** | **Ages 5-21 Consultant: Learning Disabilities Endorsement** |
| **B02** | **Ages 5-21 Consultant: Physically Handicapped Endorsement** |
| **B03** | **Ages 5-21 Consultant: Hearing Impaired Endorsement** |
| **B04** | **Ages 5-21 Consultant: Visually Impaired Endorsement** |
| **B05** | **Birth-6 Consultant: Early Childhood Special Education Endorsement** |
| **B06** | **Ages 5-21 Consultant: Multicategorical Resource Endorsement** |
| **B07** | **Ages 5-21 Consultant: Multicategorical Resources Special Classroom Endorsement** |
| **B08** | **Special Education Consultant Endorsement** |
| **B09** | **PK-K Educational Strategist Endorsement** |

# Categorical Selective List

| | |
|---|---|
| **B10** | **K-8 Educational Strategist Endorsement** |
| **B11** | **5-12 Educational Strategist Endorsement** |
| **B12** | **Supervisor - School Audiologist Endorsement** |
| **B13** | **Supervisor - School Psychologist Endorsement** |
| **B14** | **Supervisor - School Social Worker Endorsement** |
| **B15** | **Supervisor - Speech Language Pathologist Endorsement** |
| **B16** | **Professional Service Administrator Endorsement** |
| **B17** | **K-8 Instructional Strategist 1: Mild/Moderate Endorsement** |
| **B18** | **5-12 Instructional Strategist 1: Mild/Moderate Endorsement** |
| **B19** | **PK-K Early Childhood Special Education Endorsement** |
| **B20** | **K-12 Instructional Strategist II: BD/LD Endorsement** |
| **B21** | **K-12 Instructional Strategist II: MD Endorsement** |
| **B22** | **K-12 Instructional Strategist II: Physically Handicapped Endorsement** |
| **B23** | **Birth-21 Deaf or Hard of Hearing Endorsement** |
| **B24** | **Birth-21 Visually Impaired Endorsement** |
| **B25** | **5-12 General Health Occupations Endorsement** |
| **B26** | **5-12 Agriscience/Agribusiness Endorsement** |
| **B27** | **5-12 Marketing/Distributive Education Endorsement** |
| **B28** | **5-12 Office Education Endorsement** |
| **B29** | **5-12 Consumer/Homemaking Education Endorsement** |
| **B30** | **5-12 Occupational Family and Consumer Science Endorsement** |
| **B31** | **Multioccupations Endorsement** |
| **B32** | **5-12 Health Occupations Endorsement** |
| **B33** | **School Business Official Endorsement** |
| **B34** | **5-12 Engineering Endorsement** |

# Categorical Selective List

| | |
|---|---|
| **B35** | **K-8 STEM Endorsement** |
| **B36** | **5-8 STEM Endorsement** |
| **B37** | **K-12 STEM Specialist Endorsement** |
| **B38** | **Content Area Specialist Endorsement** |
| **B39** | **SAM Authorization Endorsement** |
| **B40** | **5-12 Business-All Endorsement** |
| **B41** | **5-12 Language Arts-All Endorsement** |
| **B42** | **K-8 Algebra for H.S. Credit Endorsement** |
| **B43** | **5-12 Basic Science Endorsement** |
| **B44** | **PK-12 School Nurse Endorsement** |
| **B45** | **5-8 Middle School Language Arts Endorsement** |
| **B46** | **5-8 Middle School Mathematics Endorsement** |
| **B47** | **5-8 Middle School Science Endorsement** |
| **B48** | **5-8 Middle School Social Studies Endorsement** |
| **B49** | **Physical Therapist Endorsement** |
| **B50** | **Occupational Therapist Endorsement** |
| **B51** | **Special Education Nurse Endorsement** |
| **B52** | **Orientation and Mobility Specialist Endorsement** |