



SEP 9 1999

TO: Servicing Personnel Officers

FROM: Program Analyst
Office of Tribal Programs

SUBJECT: Excepted Service Qualification Standards for the
General Schedule Occupational Series and the Trades and
Labor Series

On August 30, 1999, the Director of the Indian Health Service (IHS), approved to adopt with certain modifications, the United States Office of Personnel Management (USOPM) Operating Manual Qualification Standards for General Schedule Positions and the Handbook X-118C Job Qualification System for Trades and Labor Occupations in the IHS Excepted Service proposed as a result of the Preston Case.

Attached is Transmittal Sheet No. 17 which transmits the Indian Health Service Excepted Service Qualification Standards Operating Manual (Manual) for American Indian and Alaska Native people who apply for jobs in the IHS Excepted Service.

Part I - General Schedule, of the Manual contains qualification standards covering all occupations and positions in the General Schedule in the IHS Excepted Service with policies and instructions for applying the standards. Part II - Trades and Labor Job Qualification System, covers all Trades and Labor occupations in the IHS Excepted Service.

Please distribute the standards to the appropriate IHS staff and Public Law 93-638 contractors. If additional copies are required, they may be reproduced locally.

The standards should be filed in a notebook separate from the Civil Service Qualification Standards for General Schedule Positions (X-118) and are effective upon receipt. The transmittal supersedes all previous qualification standards, policies, and instructions issued for use in the IHS Excepted Service.

BACKGROUND

On June 7 1984, the United States Court of Appeals for the Ninth Circuit issued a decision in favor of the plaintiff who had contended that the Secretary of Health and Human Services (HHS)

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was required by the Indian Preference Act, 25 U.S.C. § 472, to adopt separate qualifications for Indian employees and applicants for employment in the IHS. The Court of Appeals agreed with the District Court that the Indian Preference Act "requires the Secretary to adopt standards for evaluating the qualifications of Indians for employment in the Indian Health Service that are separate and independent from the generally applicable civil service standards," and "give sufficient weight to the unique experience and background of Indians, including their superior knowledge of Indian needs and problems."

The decision required the Department of HHS to establish qualification standards for Indians who apply for jobs in the Excepted Service when they apply for jobs under 5 CFR 213.3116(b)(8) for Indians entitled to Indian preference. Excepted appointments are not subject to the Competitive Service appointment requirements established by the USOPM.

In addition to the above requirements, the Court stated: "If, after giving full weight to the unique experience and background of Indians, as required by statute, the Secretary concludes that the only proper qualifications for a particular position are those that have already been adopted as part of the civil service regulations (his) separate and independent adoption of the same standards would not be unlawful." The Secretary has determined that because the USOPM standards were recommended, no further review is required.

On July 9, 1984, the Assistant Secretary for Personnel Administration, HHS, issued a memorandum establishing a Steering Committee under Public Health Service leadership to develop, implement, and oversee the review of qualifications standards for occupations in the IHS. The Steering Committee reviewed the qualification standards for all positions in the IHS and recommended qualification standards for Indians who apply for jobs in the Excepted Service in the IHS.

The General Schedule standards reviews that have been made since 1984 have resulted in no substantive changes. One recommendation that has been incorporated in all the standards developed is to allow the use of selective factors and quality ranking factors, when appropriate, that pertain to knowledge, skills, and abilities relating to Indian language and/or culture. Another recommendation that was incorporated in the Contracting Series, GS-1102, was to establish the entry level at the GS-4 level rather than the GS-5.

Studies have been completed and Excepted Service standards have been established for 316 general schedule occupational series and all trades and labor occupations. These standards cover approximately 166 occupational series in the IHS and 12,960 IHS employees. This constitutes 92 percent of the IHS work force.

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There are approximately 26 series that have not been studied. This includes three student trainee series and 16 series with populations under 50 employees.

On June 15, 1990, the Director, IHS, adopted the use of the USOPM Job Qualification System for Trades and Labor Occupations, Handbook X-118C for use in the Excepted Service of the Indian Health Service with several special provisions. The use of the Handbook X-118C in the IHS Excepted Service differs from its use in the competitive service in that it permits deletion of screening elements in certain circumstances, deletes test requirements, and establishes an optional provision to add job elements pertinent to the unique background and experiences of American Indians and Alaska Natives (AI/AN) when required for successful performance.

On December 2, 1992, a notice was published in the Federal Register that the IHS intended to adopt, for the remaining USOPM job series, the USOPM qualification standards (X-118 standards) for all personnel series not yet covered by excepted service standards published for Indian applicants in the IHS with provision of the use of the following selective factors:

- a. Ability to speak and interpret the language of the Native American population to be served.
- b. Knowledge of the culture, customs, and beliefs of the Native American population to be served.

The qualification standards will apply to Indians appointed to positions under 5 CFR 213.3116(b)(8).

Although the qualification standards were adopted in 1992 (Federal Register notice dated December 2, 1992) for all personnel series not yet covered by excepted service standards, they have not been published in a formal IHS manual. The attached Manual contains qualification standards covering all occupations and positions previously published and the USOPM qualification standards that were adopted in 1992. It also contains the policies and instructions for applying the standards.

The General Schedule standards differ from the qualification standards published by the USOPM in that they include examples of selective factors and quality ranking factors, pertinent to the unique background and experiences of AI/ANs, that may be appropriate for some positions covered by the standards. One additional change, incorporated in the Contracting Series, GS-1102, was to establish the entry level at the GS-4 level rather than the GS-5. References to the competitive service and written tests have also been eliminated throughout the standards.

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The Manual also includes the USOPM Handbook X-118C Job Qualification System for Trades and Labor Occupations in the Excepted Service of the IHS with several special provisions. The use of the Handbook X-118C in the IHS Excepted Service differs from its use in the competitive service in that it permits deletion of screening elements in certain circumstances, deletes test requirements, and establishes an optional provision to add job elements pertinent to the unique background and experiences of AI/ANs when required for successful performance.

Issuance of this Manual completes the implementation of the Preston case project. Effective August 30, 1999, the Steering Committee implementation of the Preston case project was completed and the Steering Committee dissolved. The IHS Division of Human Resources (DHR) will assume responsibility for the maintenance of the Preston qualification standards for Indians who apply for jobs in the Excepted Service. The DHR has established a process for the maintenance of the Manual. The DHR will be responsible for reviewing new or revised qualification standards published by the USOPM and for incorporating changes in the Excepted Service qualification standards, as appropriate.

If you have any questions regarding this Manual, contact the DHR at (301) 443-6520.


Merry L. Elrod

Attachment

INDIAN HEALTH SERVICE
EXCEPTED SERVICE
QUALIFICATION STANDARDS
TRANSMITTAL SHEET NO. 17
SEPTEMBER 1999

On June 7, 1984, a United States (U.S.) Court of Appeals decision was made which affects hiring practices for American Indians and Alaska Natives (AI/AN) in the Indian Health Service (IHS). This court decision is referred to as the *Preston Case*. It requires the Department of Health and Human Services to establish qualification standards for Indians who apply for jobs in the Excepted Service in the IHS. Positions in the IHS are considered to be in the Excepted Service when they are filled under 5 CFR 213.3116(b)(8) by Indians entitled to Indian preference.

This transmits the Indian Health Service Excepted Service Qualification Standards Operating Manual (Manual). Part I - General Schedule, of the Manual contains qualification standards covering all occupations and positions in the General Schedule in the IHS Excepted Service with policies and instructions for applying the standards. Part II - Trades and Labor Job Qualification System, covers all Trades and Labor occupations in the IHS Excepted Service.

The General Schedule standards differ from the qualification standards published by the U.S. Office of Personnel Management (USOPM) in that they include examples of selective factors and quality ranking factors, pertinent to the unique background and experiences of AI/ANs, that may be appropriate for some positions covered by the standards. One additional change, incorporated in the contracting Series, GS-1102, was to establish the entry level at the GS-4 level rather than the GS-5. References to the competitive service and written tests have also been eliminated throughout the standards.

The Manual also includes the USOPM Handbook X-118C Job Qualification System for Trades and Labor Occupations in the Excepted Service of the IHS with several special provisions. The use of the Handbook X-118C in the IHS Excepted Service differs from its use in the competitive service in that it permits deletion of screening elements in certain circumstances, deletes test requirements, and establishes an optional provision to add job elements pertinent to the unique background and experiences of AI/ANs when required for successful performance.

This transmittal should be filed in the IHS Excepted Service Qualifications Standards binder. **This transmittal supersedes all previous qualifications standards, policies, and instructions issued for use in the IHS Excepted Service.** Revisions and updates to these qualification standards will be issued as necessary.

TS-17
September 1999

**INDIAN HEALTH SERVICE
EXCEPTED SERVICE
QUALIFICATION STANDARDS
OPERATING MANUAL**



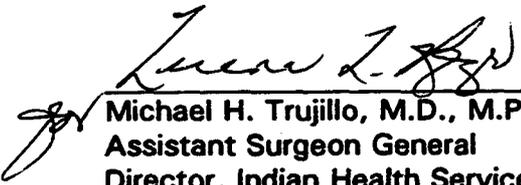
**DEPARTMENT OF HEALTH AND HUMAN SERVICES
INDIAN HEALTH SERVICE
SEPTEMBER 1999**

**TS-17
September 1999**

ESTABLISHMENT OF QUALIFICATION STANDARDS

Approval:

I hereby approve the establishment of the attached Indian Health Service Excepted Service Qualification Standards Operating Manual for Indians appointed to positions under CFR 213.3116(b)(8) in the Indian Health Service.



Michael H. Trujillo, M.D., M.P.H., M.S.
Assistant Surgeon General
Director, Indian Health Service

8/30/99

Date

PART I - GENERAL SCHEDULE

Qualification Standards for IHS Excepted Service Positions

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OPERATING MANUAL
for
IHS EXCEPTED SERVICE QUALIFICATION STANDARDS

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**INDIAN HEALTH SERVICE
EXCEPTED SERVICE QUALIFICATION STANDARDS
QUALIFICATION STANDARDS OPERATING MANUAL**

SECTION I. HOW TO USE THIS MANUAL

This Manual (generally referred to as the Qualification Standards Operating Manual) contains qualification standards that have been established for Excepted Service positions in the Indian Health Service (IHS). It is directed primarily to personnel specialists who need to determine whether applicants meet the minimum requirements for the positions being filled. The information in this Manual may also be of interest to supervisors and managers, high school and college placement officials, applicants, and others who wish to obtain information about IHS employment qualifications. However, users of this material should be aware that the broad guidelines in this Manual are not intended to provide detailed information about the specific qualification requirements for individual positions. Such information, e.g., a description of the specialized experience requirements for a particular position, is normally included in the vacancy announcement that the IHS issues when there is a position to fill.

Information about the work performed in individual occupational series is contained in the Handbook of Occupational Groups and Series and the Position Classification Standards, and is not repeated in this Manual.

Qualification standards are intended to identify applicants who are likely to be able to perform successfully on the job, and to screen out those who are unlikely to do so. They are not designed to rank candidates, identify the best qualified applicants for particular positions, or otherwise substitute for a careful analysis of applicants' knowledges, skills, and abilities (KSAs).

Users of this Manual should familiarize themselves with the general organization of the material to facilitate locating information about particular subjects or occupations. Section II, "General Policies and Instructions," is the key to understanding and using the qualification standards in this Manual. It contains basic information that applies across occupations, and should be considered an integral part of the standards themselves. The indexes in section III, medical requirements in section V and technical notes in section VI are quick references to help users find specific information. Sections VI and VII should be used to file pertinent information as it is issued. Section IV, "Qualification Standards," is the largest section of the Manual. Section IV-A includes "Group Coverage Qualification Standards" that describe common patterns of education, experience, or other requirements that apply to many different occupational series. Section IV-B, "Individual Qualification Standards and Occupational Requirements in Series Order," provides information about the minimum requirements for each occupational series.

**INDIAN HEALTH SERVICE
EXCEPTED SERVICE QUALIFICATION STANDARDS
QUALIFICATION STANDARDS OPERATING MANUAL
SECTION II. GENERAL POLICIES AND INSTRUCTIONS**

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QUALIFICATION STANDARDS OPERATING MANUAL

SECTION II. GENERAL POLICIES AND INSTRUCTIONS

A. BACKGROUND

The qualification standards contained in this Manual are established for use in the IHS Excepted Service in compliance with the decision issued by the United States Court of Appeals for the Ninth Circuit in *Preston v. Heckler*, 734 F.2d 1359 (9th Cir.1984). This decision "requires the Secretary (of Health and Human Services) to adopt standards for evaluating the qualifications of Indians in the Indian Health Service (IHS) that are separate and independent from the generally applicable civil service standards," and that "give weight to the unique experience and background of Indians, including their superior knowledge of Indian needs and problems." This decision required the Department to establish qualification standards for Indians entitled to Indian preference who apply for jobs in the Excepted Service under 5 CFR 213.3116(b)(8).

In accordance with the requirements of the *Preston* decision, the Secretary conducted an extensive review to determine the appropriateness of the United States Office of Personnel Management (USOPM) standards in evaluating the qualifications of Indian applicants. The review included approximately 166 occupational series covering approximately 13,000 IHS employees. The review involved the input of a wide range of individuals, groups, and organizations directly affected by the *Preston* decision. This review led to the determination that the qualification standards published by the USOPM are appropriate for use in evaluating Indian applicants for positions in the IHS Excepted Service as long as they allow the use of selective factors and quality ranking factors, where appropriate, that recognize and give sufficient weight to Indian applicants' superior knowledge of Indian language and culture and unique understanding of Indian needs and problems. This has been accomplished by incorporating suggested selective factors and quality ranking factors into the standards presented in the Manual (see section II.F.6 and F.7 of this section and various standards in section IV).

B. PURPOSE AND SCOPE

This Manual contains the policies, instructions, and standards used to help determine the qualifications of applicants for employment in the IHS excepted service. The qualification requirements in this Manual are used when filling Excepted Service positions at grades GS-1 through GS-15. The requirements must be met by all individuals appointed to Excepted Service positions in the IHS under the provisions of Indian Preference.

Unless otherwise specified, the same policies, instructions, and standards apply to both initial appointments and inservice placement actions.

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

C. RESPONSIBILITIES

The IHS is responsible for establishing qualification standards for Indians who apply for jobs in the Excepted Service under the provisions of 5 CFR 213.3116(b)(8). Information provided in the IHS Excepted Service qualification standards generally is not sufficiently specific to be used directly in examining for positions or to be quoted in vacancy announcements. Therefore, the IHS must include in their vacancy announcements the general or specialized experience or education required for their positions. It is not adequate to state, "See Qualification Standards Operating Manual for Indian Health Service Excepted Service Positions for experience requirements." (See section II.F.3.(c) on describing experience in vacancy announcements). The IHS is also responsible for developing selective factors, when needed, to supplement the standards in this Manual (see section II.F.6.).

The IHS is responsible for establishing medical standards for all occupations and types of appointments covered by this Manual (See section V and section II.E.9(b)).

The IHS can also modify qualification requirements for certain inservice placement actions. (See section II.E.8.(c)). When particular requirements are defined or modified, the IHS is responsible for supporting its decisions. The IHS can also waive or modify qualification requirements when assigning employees in reductions in force or in lieu of reductions in force. (See CFR 351 and HHS Instructions 351-1 for further guidance on reduction-in-force procedures.)

In those rare instances where qualification standards supplemented by selective factors will not meet IHS needs, the agency is responsible for developing and implementing new standards. (See section II.F.).

The IHS appointing officials are responsible for verifying employees' qualifications prior to appointment or assignment.

D. EXPLANATION OF TERMS

Definitions of major concepts and terms used in this Manual follow below in alphabetical order.

- *Accredited Education* is education above the high school level completed in a U.S. college, university, or other educational institution that has been accredited by one of the accrediting agencies or associations recognized by the Secretary, U.S. Department of Education.

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

- *Competitive Appointment* is an appointment to a position following open competitive examination or under direct-hire authority. The competitive examination, which is open to all applicants, may consist of an evaluation of an applicant's education and experience and/or an evaluation of other attributes necessary for successful performance in the position to be filled.
- *Competitive Service* includes all positions in which appointments are subject to the provisions of Chapter 33 of title 5, United States Code. Positions in the executive branch of the Federal Government are in the competitive service unless they are specifically excluded from it. Some positions in the IHS are outside of the competitive service in accordance with 5 CFR 213.3116(b)(8).
- *Concurrent Experience* is experience gained in more than one position, during the same period of time, with either the same employer or with a different employer.
- *Education Above the High School Level (or Post High-School Education)* is successfully completed progressive study at an accredited business or technical school, junior college, college, or university where the institution normally requires a high school diploma or equivalent for admission.
- *Fill-in Employment* is employment held by persons during the time period after leaving their regular occupation in anticipation of, but before entering, military service.
- *Foreign Education* is education acquired outside of any State of the U.S., the District of Columbia, the Commonwealth of Puerto Rico, a Trust Territory of the Pacific Islands, or any territory or possession of the U.S.
- *Graduate Education* is successfully completed education in a graduate program for which a bachelor's or higher degree is normally required for admission. To be creditable, such education must show evidence of progress through a set curriculum, i.e., it is part of a program leading to a master's or higher degree, and not education consisting of undergraduate and/or continuing education courses that do not lead to an advanced degree.
- *Group Coverage (or Generic) Qualification Standards* are standards prescribed for groups of occupational series that have a common pattern of education, experience, and/or other requirements.

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

- *High School Graduation or Equivalent* means the applicant has received a high school diploma, General Education Development (GED) equivalency certificate, or proficiency certificate from a State or territorial-level Board or Department of Education.
- *Individual Occupational Requirements* are requirements e.g., experience or education, for particular occupational series or positions within a series and are used in conjunction with a group coverage (generic) standard.
- *Inservice Placement* includes the movement of an excepted service employee by any action other than one for which external appointment procedures (as defined in HHS Instruction 302-1) are used.
- *Knowledge, Skills, and Abilities (KSAs)* are the attributes required to perform a job and are generally demonstrated through qualifying experience, education, or training. Knowledge is a body of information applied directly to the performance of a function. Skill is an observable competence to perform a learned psychomotor act. Ability is competence to perform an observable behavior or a behavior that results in an observable product.
- *Modification* of a qualification standard for inservice placement actions means agency qualification requirements different from those in the published standard. While applicants who qualify under a modified standard do not meet all of the specific requirements described in the published standard, their overall background show evidence of their potential success in the position to be filled. A modified standard may apply to any number of positions in the IHS.
- *Noncompetitive Action* means an appointment to or placement in a position that is not made by selection from an open competitive examination, and that is usually based on current or prior Federal service.
- *Normal Line of Promotion (or Progression)* is the pattern of upward movement from one grade to another for a position or group of positions in an organization.
- *Position* means the officially assigned duties and responsibilities that make up the work performed by an employee.

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

- *Quality Ranking Factors* are KSAs that could be expected to enhance significantly performance in a position, but are not essential for satisfactory performance. Applicants who possess such KSAs may be ranked above those who do not, but no one may be rated ineligible solely for failure to possess such KSAs.
- *Related Education* is education above the high school level that has equipped the applicant with the KSAs to perform successfully the duties of the position being filled. Education may relate to the duties of a specific position or to the occupation, but must be appropriate for the position being filled.
- *Research Positions* are positions in professional series that primarily involve scientific inquiry or investigation, or research-type exploratory development of a creative or scientific nature, where the knowledge required to perform the work successfully is acquired typically and primarily through graduate study. The positions are such that the academic preparation will equip the applicant to perform fully the work after a short orientation period.
- *Selective Factors* are KSAs, or special qualifications that are in addition to the minimum requirements in a qualification standard, but are determined to be essential to perform the duties and responsibilities of a particular position. Applicants who do not meet a selective factor are ineligible for further consideration.
- *Series or Occupational Series* means positions similar as to specialized work and qualification requirements. Series are designated by a title and number such as the Accounting Series, GS-510; the Secretary Series, GS-318; and the Microbiology Series, GS-403.
- *Specialized Experience* is experience that has equipped the applicant with the particular KSAs to perform successfully the duties of the position and is typically in or related to the work of the position to be filled.
- *Waiver* of a qualification standard involves setting aside requirements in a published standard to place an employee in a particular position, usually to avoid some kind of hardship to the employee, such as in cases of reduction in force or administrative error on the part of the agency. Extra training and/or skills development may be needed to help the employee adjust to the new position. Waivers are granted by the IHS, as appropriate, on a case-by-case basis, and do not directly affect other positions in the IHS.

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

- *Work-Study Programs* are government or non-government programs that provide supervised work experience related to a student's course of study and are a part of, or a supplement to, education. Federal student-trainee programs are examples of such programs.

E. DESCRIPTION OF QUALIFICATION STANDARDS

1. Purpose of Standards.

The qualification standards in this Manual help determine which applicants would be able to perform satisfactorily in the positions to be filled. The education, training, experience, or other requirements included in the qualification standards are minimum requirements, i.e., it would be unlikely that an applicant for employment would be able to perform satisfactorily in a particular position or occupational series if he or she did not possess these qualifications. The standards are designed to be easy to understand and to eliminate artificial barriers that hinder entrance into Federal occupational series.

Many qualification standards include requirements such as the ability to communicate orally and/or in writing, or to produce information through the use of personal computers or other equipment. Such ability requirements are not intended to limit how an applicant will physically perform a duty, i.e., they are not meant to exclude from consideration applicants with disabilities who have demonstrated that they can do the work in other ways, such as by using readers, interpreters, or voice-activated equipment. The required abilities are to ensure that the end product of the speaking, writing, etc., is of the appropriate level of competence. Reasonable accommodation, including job restructuring, must be routinely considered in determining whether an individual meets the required KSAs.

2. Content of Standards.

Most qualification standards permit applicants to qualify on the basis of education/training, experience, or a combination of the two. They include the patterns of education, training, and/or experience most commonly applicable to a particular occupational series. Some qualification standards, however, have specific educational, licensure, or certification requirements that may apply only to specific positions in an occupational series.

QUALIFICATION STANDARDS OPERATING MANUAL
GENERAL POLICIES AND INSTRUCTIONS (continued)

In addition, the requirements in the IHS qualification standards can be supplemented by selective factors or quality ranking factors as described below in section II.F.6. and F.7.

F. APPLICATION OF QUALIFICATION STANDARDS

1. Selecting the Appropriate Qualification Standard.

The IHS servicing personnel offices (SPOs) should select the qualification standard that covers the occupational series to which a position has been classified. If there is more than one standard for an occupational series, the standard for the applicable position(s), as designated in sections III and IV of this Manual, should be selected.

For details, employees do not have to meet the qualification requirements for the position to which they are detailed, except for any minimum educational, licensure, and certification requirements.

2. Implementing New or Revised Standards.

New or revised qualification standards issued by the IHS must be implemented within 6 months of the transmittal date of the published standard, unless otherwise specified.

3. Experience Requirements.

Experience is typically described in a qualification standard as either general or specialized experience.

(a) General experience is usually required at grade levels where the knowledge and skills needed to perform the duties of a specific position are not a prerequisite, but where applicants must have demonstrated the ability to acquire the particular knowledge and skills.

(b) Specialized experience is typically required for positions above the entry level where applicants must have demonstrated that they possess the ability to perform successfully the duties of a position after a normal orientation period. Specialized experience is typically in or related to the work of the position to be filled.

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

(c) *Describing experience* in vacancy announcements--The following factors should be considered in describing experience in vacancy announcements:

- Since a published qualification standard may cover many positions in many different organizations, it must be broad enough to cover the range of work classified to the occupational series. Therefore, the SPOs should clearly describe the specific experience or education required to qualify for the positions covered by a vacancy announcement. This will better attract applicants with appropriate qualifications, thereby greatly improving the effectiveness of the appointment process.
- The description of qualifying general experience will vary in its degree of specificity from one series to another. For some occupational series, any progressively responsible work experience may be qualifying. Others may require experience that provided a familiarity with the subject matter or processes of the broad subject area of the occupational series. For example, an entry level medical technician position may require general experience that provided a basic knowledge of the procedures and equipment in a chemical or clinical laboratory.
- A position description or a position classification standard can usually provide specific information related to the duties and responsibilities typical of work in an occupational series or position. This information is useful in the staffing process in identifying specialized experience requirements and also in determining the level of experience possessed by applicants.
 - (1) Determining level of experience--Most qualification standards require that a certain amount of the qualifying experience be at a level of difficulty and responsibility equivalent to the next lower or second lower grade. The grade-level criteria in position classification standards or guides help in making this determination, particularly for applicants with experience outside the Federal Government.
 - (2) Identifying specialized experience--As indicated in (b) above, many qualification standards describe specialized experience as experience "related to the work of the position." This is to allow agencies to pinpoint the specific requirements in the vacancy

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

announcements for their positions. For example, to meet the specialized experience requirements for a medical technician position, the applicant would likely be required to have a specific level of experience performing duties such as preparing culture media and stains and performing certain laboratory tests. The description of duties and responsibilities contained in the position classification standard, along with the position description, help in identifying the kinds of work experience that would meet this requirement. In addition, the knowledge, skills, and abilities required to perform the work may also be described.

(d) Crediting experience--Creditable experience is experience of the type (general or specialized), level, and amount specified in the appropriate standard. Applicants are considered to have satisfied the requirement for 1 year of experience through completion of either 12 months or 52 weeks of creditable work experience, whichever comes first. Similarly, a requirement for 6 months of experience can be met by an applicant with 26 weeks of experience, and a requirement for 3 months of experience can be met by an applicant with 13 weeks of experience. Regardless of the method used to determine the amount of qualifying experience, it should be noted that the qualification standards in this Manual describe minimum requirements only. Therefore, they should ensure that the quality of an applicant's experience clearly demonstrates the necessary KSAs to perform the work of the position to be filled.

- If the standard distinguishes between general and specialized experience, general experience cannot be credited as specialized experience. However, specialized experience can be credited as general experience.
- Applicants who meet the experience requirements for a higher grade level in a given series also meet the experience requirements for lower grades in the same series.
- Salary or military rank alone should not be used to determine the level of an applicant's experience. Experience for which the applicant received little or no pay is given the same credit as comparable paid experience.

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GENERAL POLICIES AND INSTRUCTIONS (continued)

- Federal employees are assumed to have gained experience by performing duties and responsibilities appropriate for their official series and grade level as described in their position description. However, experience that would not normally be part of the employee's position is creditable when documented by satisfactory evidence (e.g., a memorandum from the manager or personnel officer, SF-52, or other documentation). Similarly, experience gained in the Federal service under a misassignment or improper appointment is given the same credit as experience under a proper appointment if the applicant submits satisfactory evidence to substantiate his/her claim.
 - An employee whose position is upgraded as a result of a reclassification is considered to meet the qualification requirements of the upgraded position, since he or she has been performing the higher-graded work. However, employees must meet any licensure or certification requirements, as well as any minimum educational requirements or the provisions in section II.F.4.(g).
 - Appropriate experience gained while on detail or in "mixed-grade" or "mixed-series" positions is creditable when satisfactorily documented. Credit is given for the percentage of time that the applicant spent on the qualifying duties. Also see paragraph (l) on crediting experience gained on detail, and section II.F.10. on crediting supervisory experience.
- (e) *Crediting one-grade interval or wage grade experience*--Technician, paraprofessional, and substantive clerical support experience may be qualifying for two-grade interval positions, and wage grade experience may be qualifying for non-wage grade positions, if the experience demonstrated the KSAs required to perform the work successfully. This is true for either lateral or promotion actions.

The basic requirements for type and level of experience and/or education apply to all applicants, whether their experience has been in the same occupation as the position being filled or in related support or wage grade occupations. Work experience that included both qualifying and nonqualifying duties is credited based on the percentage of time spent on the creditable experience.

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GENERAL POLICIES AND INSTRUCTIONS (continued)

Applicants with specialized experience can have that experience credited towards meeting the basic requirements for professional occupations that permit qualification on the basis of experience as well as education. Such experience may be creditable not only for meeting the basic requirements, but also for positions at GS-7 and above if it is comparable to that which would have been gained in a two-grade interval professional series and clearly demonstrates that the applicant has the necessary background to perform satisfactorily the duties of the position to be filled.

Since two-grade interval positions may differ significantly in the nature of the work (e.g., greater independence, responsibility, and judgment), it is important that applicants be evaluated on the variety and progressive nature of their work assignments and on any applicable training or course work completed.

(f) *Determining normal work week/work year*--Credit is given based on the normal work week and work year for the particular type of employment. Experience that involved less than the normal work week or work year is credited based on the relation it bears to the norm. Work weeks/work years are credited as follows:

- In most occupations, the normal full-time work week is 35-40 hours and the normal work year is 12 months. Employees are not expected to work during scheduled days off, holidays, or normal vacation periods.
- In occupations where the normal work year is less than the calendar year, e.g., teaching, an applicant who works the prevailing work year should be credited with a full year of required experience unless the applicable standard specifies otherwise. An applicant who receives a full year's credit for less than 12 months of actual work cannot gain additional credit for doing more of the same work in the remaining months (e.g., for teaching in summer school). However, credit can be given for any applicable experience gained in a different type of work, but no more than 1 year of experience can be credited for any 12-month period.
- Part-time work is prorated in crediting experience. For example, an employee working 20 hours per week for a 12-month period should be credited with 6 months of experience. Creditable experience should generally be determined on the basis of hours in a pay status

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GENERAL POLICIES AND INSTRUCTIONS (continued)

(excluding overtime) rather than scheduled hours in order to recognize the service of part-time employees who frequently are required to work additional straight-time hours.

Applicants who have the same amount of experience should generally receive the same credit. For example, a seasonal employee who worked full time for 9 months a year and a part-time employee who worked 30 hours a week for a year would receive the same credit. However, as stated in section II.E.3.(d), SPOs should ensure that the quality of an applicant's experience clearly demonstrates the necessary to perform the work of the position to be filled. Personnel specialists should be careful in totaling small segments of time worked to ensure that they materially add to a person's qualifications, e.g., that substantive knowledge or skills have been gained.

- Employees who entered military duty or who sustained compensable injuries on the job while serving under a career or career-conditional appointment will receive credit for experience on a different basis. See 5 CFR 353, Restoration to Duty From Military Service or Compensable Injury. (Also see section II.3.F(k) on military experience, that follows, to determine how to credit military leave as experience.)

Instances may occur where applicants worked significantly less than their scheduled hours. For example, applicants may have been employed normally on a full-time, part-time, or seasonal basis, but took extended leave. In such instances, it would be reasonable to evaluate any significant consecutive period of leave (e.g., 35 work days or more in a year) to determine whether it effectively reduces the applicant's qualifications for a position.

(g) *Concurrent experience* in more than one position--Concurrent experience can be credited as follows:

- *General experience*--Credit may be given for general experience gained concurrently in more than one position depending on its applicability. If the experience meets the requirements of the standard, credit should be given for the time, excluding overtime, worked in each position. However, credit can be given for only 1 year of experience for any 12-month period. For example, a person who worked full time in each of two clerical positions for over 6 months during a 12-month period,

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GENERAL POLICIES AND INSTRUCTIONS (continued)

performing duties comparable to the GS-3 level, can only be credited with 1 year of general experience.

- *Specialized Experience--Concurrent*, straight-time experience in a second position can be credited towards meeting specialized experience requirements only if it contributes significantly to the applicant's possession of the specific KSAs required for the position to be filled. However, credit may be given for only 1 year of qualifying experience for any 12-month period.

- (h) *Crediting teaching experience for non-teaching positions*--In evaluating teaching experience for credit as specialized experience, the nature of the material taught and the responsibility, scope, and knowledge required by the teaching position should be compared to the requirements of the appropriate standard. To be creditable as specialized experience, the teaching and non-teaching activities should have provided the applicant with the same type and level of KSAs that would be required to perform qualifying work in the field. Normally, teaching experience would have to be at the college level to be creditable for professional positions.

- (i) *Education and experience gained concurrently*--When qualifying education and experience have been gained concurrently, credit is given for each based on the time spent and merit of each. In many instances, supervised experience is required as part of an academic curriculum or course work (e.g., nursing, teaching, or social work). An applicant cannot receive full credit for this supervised experience as education and additional credit for the supervised experience as experience, except as may be provided in a particular standard, since the practical experience is integral to the educational curriculum. The applicant can, however, receive full credit for supervised experience that was not considered as part of the qualifying education. (Also see section II.F.3.(j) below).

- (j) *Crediting work-study experience for initial appointment*--Experience gained by graduates of work-study programs can be credited towards meeting specialized experience requirements if the work-study experience was related to and integrated with education above the high school level and contributed to the development of competence in the specialized field of the position being filled. To meet the specialized experience requirements, the applicant must have 12 months of work experience in a work-study program, with at least 2 months (320 hours) of work equivalent to the next lower grade level or band in the normal line of

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GENERAL POLICIES AND INSTRUCTIONS (continued)

progression for the position to be filled. (Undergraduate work-study experience is normally comparable to experience gained at GS-5 or below.) Work-study experience is creditable, even when it is a mandatory requirement of the school, unless academic credit, i.e., grades or credit hours, has been given for such experience. Note that credit cannot be granted both as education and experience for the same period of work. (See section II.F.3.(i) above.)

(k) *Military experience*--Military service that is creditable for veterans' preference or that is the basis for restoration to the former civilian position should either be evaluated as an extension of the work the individual was doing immediately before entry into the Armed Forces, or on its own merits, whichever is more beneficial to the individual. In instances where employment in an occupation interrupted by military service was on a part-time basis, the extension of that experience is creditable on the same part-time basis.

- *Extension of prior civilian experience*--Creditable military service can be counted as an extension of the work the individual was engaged in immediately prior to entry into service. ("Immediately prior to" is defined as within the 90-day period preceding entry into military service.) In instances where an individual accepted fill-in employment while awaiting induction, he or she is considered as having been employed in his or her regular occupation "immediately prior to" entry into military service, if the period of fill-in employment did not exceed 90 days. In crediting time spent in military service as an extension of time spent in civilian occupations, military service can be credited either as an extension of the regular employment or of the fill-in employment, whichever is more advantageous to the individual. All military experience evaluated on this basis will be credited at the same level of difficulty and responsibility as the prior civilian experience.
- *Military experience on its own merits*--If the actual military experience is to be evaluated for credit, it is particularly important that it is evaluated on the basis of the duties performed, rather than on the basis of the military rank of the individual.

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- (l) *Crediting experience gained on detail*--Experience of employees who have been detailed to another position is credited in much the same way as military experience, described above. That is, the experience is credited as an extension of the work the employee was doing immediately prior to the detail, or on its own merits, *whichever is more beneficial to the employee*. Employees continue to be incumbents of the positions from which detailed. Thus, they should not be penalized for a detail to a position that may differ in duties and responsibilities from those of their regular position.
- (m) *One-year specialized experience provision for General Schedule grades*--At GS-5 and above, the qualification standards for most occupational series call for 1 year of specialized experience equivalent to at least the next lower grade level in the normal line of progression. Applicants need not meet any cumulative years of experience requirements or general or lower level specialized experience requirements to qualify. They must, of course, meet any minimum educational, licensure, or other special qualification requirements and selective factors established for the position being filled. To be creditable, an applicant's 1 year of specialized experience must demonstrate the KSAs necessary for successful job performance. When applicants meet the experience requirements for a given grade level, they also meet the experience requirements for positions at lower grade levels in the same occupation. This provision applies unless the qualification standard for the occupation or position specifically states that more or less experience is required. It applies to both initial appointments and inservice placement actions. (Also see paragraph (n) below.)
- (n) *One-year specialized experience provision for banded positions*--If groups of positions have been placed in pay or grade bands that group two or more General Schedule grades together, the type and level of experience required to perform the work of the position to be filled will need to be defined by the IHS. Therefore, the IHS must include in their vacancy announcements, the general and specialized experience or education required for their positions. It is not adequate to state, "see Qualifications Standards Operating Manual for Indian Health Service Excepted Service Positions for experience requirements." Applicants need only 1 year of the identified experience, either equivalent to a lower level within the band or to the next lower level band. (Also see paragraph (q) below.)

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- (o) *Determining level of experience required in one-grade interval series*--For most one-grade interval occupational series, the qualification standard calls for at least 1 year of specialized experience as described in (m) above. Sometimes, however, there is no position in the normal line of progression in an organization that is one grade lower than the position being filled. In such instances, 1 year of specialized experience at the second lower level is creditable.
- (p) *Determining level of experience required in two-grade interval series*--Most two-grade interval occupational series follow a progression pattern of GS-5, GS-7, GS-9, GS-11, GS-12, GS-13, etc., with two-grade intervals occurring from grades GS-5 through GS-11. Applicants need 1 year of experience equivalent to at least the GS-5 grade level to qualify for GS-7, 1 year equivalent to at least the GS-7 grade level to qualify for GS-9, and 1 year equivalent to at least the GS-9 grade level to qualify for GS-11. However, some positions in two-grade interval series are established at the intervening even-numbered grades, i.e., GS-6, GS-8, and GS-10. If positions are established at an intervening grade as part of the normal line of progression in a series, then applicants applying for the next higher grade would be required to have 1 year of experience at that even-numbered grade. For example, if a SPO advertised for a GS-9 position and had an established GS-8 in the normal line of progression, applicants would be required to have 1 year of experience equivalent to at least grade GS-8. A year of experience equivalent to GS-7 would not be considered qualifying for that position. On the other hand, if a SPO advertised for a GS-10 position and had an established GS-8, but no intervening GS-9 position, applicants would be considered qualified if they had 1 year of experience at least equivalent to GS-8.
- (q) *Determining level of experience based on crediting required KSAs* -- Most jobs are classified and graded on the basis of the duties that constitute the primary reason for establishing the position. However, a position may include many other significant duties that are not grade-controlling, i.e., that are not the duties that determine the particular grade assigned to a position. Some of these duties may be similar to those performed at lower grade levels, or in positions in other series. Applicants must have experience performing the grade-controlling work at the next lower grade level, and work experience that demonstrates possession of the other required KSAs at the appropriate level. However, they should not be screened out if their background does not reflect 1 year of experience at the next lower grade level performing all of the duties in a position.

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For example, a position is classified as a GS-12 Exhibits Specialist. The grade-controlling duties as described in the position description might be planning and preparing gallery spaces for exhibits, but the position also involves analyzing how various exhibits were received by the public and providing written reports and recommendations on how such exhibits could be improved in the future. If an applicant has at least GS-11 level skill in planning and preparing gallery spaces for exhibits, and has GS-9 level experience analyzing work processes and methods and writing reports, he or she can be considered qualified if the GS-9 level experience was sufficient to perform the GS-12 Exhibits Specialist job, as described in the position description.

In systems where groups of positions have been placed in a pay or grade band, all of the duties and responsibilities of a position would typically fall within the same band. However, the SPOs would still need to determine the duties that constitute the primary reason for placing a position within a particular band and the level of the qualifications required to perform the work of the position.

4. Educational and Training Provisions or Requirements

The educational provisions referenced in a qualification standard normally pertain to either high school graduation or the equivalent, or to education above the high school level (post high-school education). Whether at the high school or post high school level, SPOs cannot require education unless it can be determined that the duties of a scientific, technical, or professional position cannot be performed by an individual who does not have the prescribed minimum education. The SPOs cannot impose minimum educational requirements above those set by the IHS. However, additional education may be a valid job ranking factor.

The index to this Manual (section III-B) identifies the occupational series for scientific and professional positions for which minimum educational requirements have been established. Under the excepted service examining plan, the names of disabled veterans with a compensable service-connected disability of 10 percent or more are entered on registers ahead of other eligibles, except on registers established for scientific and professional positions at grades GS-9 and above. The scientific and professional occupations identified in section III-A should be used as the basis for determining whether such compensably disabled veterans should "float" to the top of registers.

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Generally accepted professional credentials, such as engineering registration, successful completion of certain actuarial examinations, or a Certified Public Accountant certificate are also recognized as being equivalent to meeting minimum educational requirements. Examples of such alternate provisions are generally included in the qualification standard for the occupational series.

The provisions detailed in paragraphs (a)-(f), which follow, should be used to determine creditable post-high school education or training at an accredited business or technical school, junior college, college or university. Paragraph (g) discusses minimum educational requirements and how they are interpreted.

It is the applicant's responsibility to provide documentation or proof that he or she has met the applicable educational provisions described in this subsection. An official transcript; statement from the institution's registrar, dean, or other appropriate official; or equivalent documentation is acceptable.

(a) Acceptability of higher education--Education meeting the following criteria can be used to meet qualification requirements:

- *Conventional*--At the time the education was obtained, the entire institution, applicable school within the institution, or the applicable curriculum was appropriately accredited by an accrediting organization recognized by the Secretary, U.S. Department of Education. Institutions accredited by these organizations are listed in the Directory of Postsecondary Institutions, U.S. Department of Education, National Center for Education Statistics; or in publications such as those listed under REFERENCES AND SOURCES in section II.

Consider only those institutions identified as degree offering under this provision. Education from institutions that do not offer degrees must be evaluated by the provisions described under Other Education, which follows.

- *Other Education*--Other education (e.g., foreign education, home study and correspondence courses, academic credit for work experience, military education, continuing education units, life experience, etc.) is acceptable to the extent that it is determined to be equivalent to

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conventional higher education programs of U.S. institutions. Such education must meet one of the following provisions:

- The specific courses have been accepted for college-level credit by an accredited U.S. college or university because they would be creditable if the student were to further his or her education at that institution.
- The academic credit earned through a special credit program such as the College Level Examination Program (CLEP) has been awarded by an accredited college, university, or institution.
- If credit has been given for life experience, the college or university must identify the course work area(s) or courses for which the credit is given. There must be a direct link between credit given and the course objectives or syllabus, i.e., the course and the life experience must be comparable in nature, content, and level. Life experience credit for courses that are not identified in its course catalog as part of a college or university's curriculum is not acceptable, unless the college or university is giving credit for course work that is a prerequisite for more advanced courses included in its curriculum.
- Credit for home study course work has been granted by a postsecondary institution accredited by the National Home Study Council.
- An accredited U.S. State university reports the other institution as one whose transcript is given full value, or full value is given in subject areas applicable to the curricula at the State university.
- The education completed outside the U.S. has been submitted to a private organization that specializes in interpretation of foreign educational credentials and such education has been deemed at least equivalent to that gained in conventional U.S. education programs. The Council on Postsecondary Accreditation may be of some help in providing information on these organizations.

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- Credits from the United States Department of Agriculture (USDA) Graduate School, or other institutions determined to be equivalent for this purpose, are accepted on the same basis as study in accredited colleges and universities.

Education or training that cannot be accepted under the above criteria may still be valuable, and should be considered in the ranking process when evaluating an applicant's overall qualifications for a position.

(b) Qualifying Education or Training--The following table shows the amount and level of education typically required for each grade for which education alone can be qualifying. At GS-13 and above, appropriate specialized experience is required for all positions.

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GENERAL POLICIES AND INSTRUCTIONS (continued)

GRADE	QUALIFYING EDUCATION
GS-1 ...	None
GS-2 ...	High school graduation or equivalent
GS-3 ...	1 academic year above high school
GS-4 ...	2 academic years above high school, or Associate's degree
GS-5 ...	4 academic years above high school leading to a bachelor's degree, or Bachelor's degree
GS-7 ...	Bachelor's degree with Superior Academic Achievement for two-grade interval positions, or 1 academic year of graduate education (or law school, as specified in qualification standards or individual occupational requirements)
GS-9 ...	Master's (or equivalent graduate degree such as LL.B. or J.D., as specified in qualification standards or individual occupational requirements), or
GS-11 ..	2 academic years of progressively higher level graduate education Ph.D. or equivalent doctoral degree, or 3 academic years of progressively higher level graduate education, or for research positions only, completion of all requirements for a master's or equivalent degree (See information on research positions in the qualification standard for professional and
GS-12 ..	scientific positions in section IV-A.) For research positions only, completion of all requirements for a doctoral or equivalent degree (See information on research positions in the qualification standard for professional and scientific positions in section IV-A.)

(c) Academic year--An academic year is computed as follows:

- At the undergraduate level, successfully completed education that has not led to possession of a degree is credited based on its relationship to 120 semester hours or 180 quarter hours. For example, 30 semester hours or 45 quarter hours is comparable to 1 year of undergraduate education. Four years of progressive study or 120 semester hours meets the degree requirements described in this Manual. Additional credit cannot be given for duplicate course work.

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- For study at a business or technical school, 36 weeks of study (20+ classroom hours per week) is comparable to 1 academic year above high school.
 - An academic year of graduate education is considered to be the number of credit hours that the school attended has determined to represent 1 academic year of full-time study. This determination is made based on normal course loads for a full year of study in the graduate program. If that information cannot be obtained from the school, 18 semester hours or 27 quarter hours should be considered as satisfying the 1 year of full-time study requirement. Part-time graduate education is creditable in accordance with its relationship to a year of full-time study at the school attended.
 - When academic credit is expressed in contract months, units, or other terms that differ from conventional semester or quarter hours, it is the responsibility of the applicant to provide an interpretation of such credits from the appropriate institution in order to equate them to the semester or quarter hours specified in the standard.
- (d) *College or university education*--Educational course work may be at either the undergraduate or graduate level. Successful completion of graduate level courses will be accepted as evidence that an applicant also possesses the knowledge taught in courses at lower levels in the same field.

Applications can be accepted from students who expect to complete qualifying education within 9 months from the date of application. However, the SPOs must verify that the education was completed successfully before the applicant can be appointed.

Generally, courses in the same or a related major taken at one institution can be assumed to be progressively more difficult and, thus, credited at full value. However, the educational record of applicants who have changed majors, attended several different institutions, or taken courses only sporadically should be reviewed closely. Course titles and numbers may help determine level. (Courses entitled "Introduction to ..." or with numbers beginning with A or 1 are almost always lower level courses.) Transcripts noting the level of the student, e.g., junior, when the courses were taken may help also. If the level of an applicant's

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courses is not clear, the degree to which the courses relate to each other should be considered in determining whether the education meets the requirements of the position being filled.

When qualifying applicants on the basis of years of graduate education in lieu of an advanced degree, care must be exercised in determining credit for post-baccalaureate education. Such education must show evidence of progress through a set curriculum or program leading to an advanced degree. Extra credit for graduate education should not be given because a person has taken longer than the usual time to complete the educational program. It is the intent that 2 years of graduate study be substantially equivalent to a master's degree, and 3 years be substantially equivalent to a Ph.D. degree. Graduate-level credit should not be given for undergraduate level course work unless it is a requisite part of the graduate-level curriculum. If an applicant had to complete undergraduate course work as a prerequisite for pursuing an advanced degree, that undergraduate-level study should not be credited as graduate education.

- (e) *Crediting education in one-grade interval occupations*--For one-grade interval occupations, when education is used to meet specialized experience requirements at grade GS-5, the level of the course work must have been equivalent to at least the junior-and senior-year levels of a baccalaureate program. (See paragraph (d) above for discussion of level of education).
- (f) *Superior academic achievement (S.A.A.)*--This provision covers advanced trainee positions providing opportunities for advancement upon attaining required job skills and knowledge, require no prior experience, and have work classified at two-grade intervals. It recognizes students who have achieved superior academic standing as evidenced by one of the three methods described below. In order to be credited under this provision, superior academic achievement must have been gained in a curriculum qualifying for the position to be filled.

The superior academic achievement provision applies to both initial appointment and inservice placement actions. It is to be used to determine eligibility for applicable GS-7 level positions of persons who have completed (or expect to complete within 9 months) all the requirements for a bachelor's degree from an accredited college or university.

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College/university seniors can apply for positions prior to graduation and be considered for a GS-7 appointment based on their grades at the time of application. However, some applicants may not receive their final grades in a timely fashion after graduation. Therefore, the IHS SPOs can either:

- Require that senior students provide evidence that they maintained the required grades during their senior year prior to entry on duty; or
- Appoint applicants based on their claimed academic achievement, pending verification of final grades. The SPOs should inform such applicants that if the required grades were not maintained through their senior year, there is a possibility that they may not be able to retain either the GS-7 grade or the position.

The S.A.A. is based on (1) class standing, (2) grade-point average (G.P.A.), or (3) honor society membership.

1. *Class standing*--Applicants must be in the upper third of the graduating class in the college, university, or major subdivision, such as the College of Liberal Arts or the School of Business Administration, based on completed courses.
2. *Grade-point average*--Applicants must have a G.P.A. of:
 - a. **3.0 or higher out of a possible 4.0 ("B" or better)** as recorded on their official transcript, or as computed based on 4 years of education, or as computed based on courses completed during the final 2 years of the curriculum; or
 - b. **3.5 or higher out of a possible 4.0 ("B+" or better)** based on the average of the required courses completed in the major field or the required courses in the major field completed during the final 2 years of the curriculum.

The G.P.A.s are to be rounded to one decimal place. For example, 2.95 will round to 3.0 and 2.94 will round to 2.9.

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The G.P.A. should be credited in a manner that is most beneficial to the applicant. For example, applicants may list their G.P.A. as recorded on their final transcript, or they may choose to compute their G.P.A. The specific provisions are detailed below:

- G.P.A. as recorded on the final transcript. The final transcript must cover the period being used to determine G.P.A., i.e., all 4 years or last 2 years.
- G.P.A. including course work after bachelor's degree. Undergraduate course work obtained after an applicant has received a bachelor's degree can be credited in computing the G.P.A. of applicants who need those courses to meet qualification requirements, i.e., the courses are required by the standard or by the individual occupational requirement.

They are treated as described in the following example:

An applicant for a Biologist position has a bachelor's degree that included no biology course work, but has taken 24 semester hours in undergraduate biology courses after obtaining the bachelor's degree. The grades earned in the biology courses should be included in the computation to determine this applicant's eligibility for GS-7 under the S.A.A. provision. These courses should be counted in determining (1) the overall G.P.A., (2) the average obtained during the final 2 years of the undergraduate curriculum, and/or (3) the average in the major field of study. For purposes of this example, biology would be considered the major field of study.

- G.P.A. excluding pass/fail courses. Applicants usually cannot claim credit based on their overall G.P.A. if more than 10 percent of their total credit was based on pass/fail or similar systems rather than on traditional grading systems. However, if they can document that only their freshman-year courses (25 percent or less of their total credit) were credited on a pass/fail or similar system, they can use their overall G.P.A. to claim S.A.A. If 10 percent or fewer credits or only freshman-year courses were based on pass/fail or similar systems, such credits can be ignored and the G.P.A. computed on the graded courses. Applicants can, however, still claim credit based on their last 2 years if 10

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percent or fewer credits were based on pass/fail or similar systems. Applicants who cannot claim credit under the G.P.A. requirements may claim credit for superior academic achievement only on the basis of class standing or honor society membership.

3. *Election to membership in a national scholastic honor society*--Applicants can be considered eligible based on membership in one of the national scholastic honor societies listed below. These honor societies are listed in the Association of College Honor Societies: Booklet of Information (1992-95) and/or Baird's Manual of American College Fraternities (1991). The SPOs considering eligibility based on any society not included in the following list must ensure that the honor society meets the minimum requirements of the Association of College Honor Societies. Membership in a freshman honor society cannot be used to meet the requirements of this provision.

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National Scholastic Honor Societies

Alpha Chi	Order of the Coif
Alpha Delta Mu	Phi Alpha Theta
Alpha Epsilon	Phi Beta Kappa
Alpha Epsilon Delta	Phi Kappa Phi
Alpha Kappa Delta	Phi Sigma
Alpha Kappa Mu	Phi Sigma Iota
Alpha Omega Alpha	Phi Sigma Tau
Alpha Phi Sigma	Phi Upsilon Omicron
Alpha Pi Mu	Pi Alpha Alpha
Alpha Sigma Mu	Pi Delta Phi
Alpha Sigma Nu	Pi Gamma Mu
Beta Gamma Sigma	Pi Kappa Lambda
Beta Kappa Chi	Pi Mu Epsilon
Beta Phi Mu	Pi Omega Pi
Chi Epsilon	Pi Sigma Alpha
Delta Epsilon Sigma	Pi Tau Sigma
Delta Mu Delta	Psi Chi
Delta Phi Delta	Rho Chi
Delta Sigma Rho-Tau Kappa Alpha	Sigma Delta Pi
Delta Tau Alpha	Sigma Gamma Epsilon
Eta Kappa Nu	Sigma Gamma Tau
Gamma Sigma Delta	Sigma Lambda Alpha
Gamma Theta Upsilon	Sigma Lambda Chi
Iota Sigma Pi	Sigma Pi Sigma
Kappa Delta Pi	Sigma Tau Delta
Kappa Gamma Pi	Sigma Theta Tau
Kappa Mu Epsilon	Sigma Xi
Kappa Omicron Nu	Tau Beta Pi
Kappa Tau Alpha	Tau Sigma Delta
Lambda Iota Tau	Theta Alpha Kappa
Mortar Board	Xi Sigma Pi
National Collegiate Players	
Omega Chi Epsilon	
Omega Rho	
Omicron Delta Epsilon	
Omicron Delta Kappa	
Omicron Kappa Epsilon	

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GENERAL POLICIES AND INSTRUCTIONS (continued)

(g) Interpreting minimum educational requirements--The establishment of minimum educational requirements is permitted only when it has been determined that the work cannot be performed by persons who do not possess the prescribed minimum education. This includes instances where it would not be cost-effective for an individual to acquire, through on-the-job training, the KSAs necessary for successful performance of the critical duties within a reasonable period of time. In addition, education is sometimes required by law for a position because of the impact on public health and safety or national security.

The same minimum educational requirements apply to all applicants and employees, including employees detailed to an occupational series with minimum educational requirements.

It is important to recognize that on rare occasions there may be applicants who may not meet exactly the educational requirements for a particular series, but who, in fact, may be demonstrably well qualified to perform the work in that series because of exceptional experience or a combination of education and experience. In such instances, a more comprehensive evaluation must be made of the applicant's entire background, with full consideration given to both education and experience. To be considered qualified, the applicant's work experience must reflect significant full performance-level accomplishment directly applicable to the position to be filled, and be verified by a panel of at least two persons who have professional standing in the field. Such verification is necessary to insure that the applicant's background is compared to the appropriate duties and responsibilities required at the full performance level in the occupation. It is important that the comparison be based on a correctly classified position description or on USOPM position classification standards or grade level criteria. The following are examples of such situations:

- An applicant with a Ph.D. in mathematics applies for a GS-1701, Educational Research Specialist position at the GS-13 grade level. Since the qualification standard for GS-1701 requires courses in education or in a field appropriate to the work of the position, it might appear that this person is not qualified for the GS-1701 position because the applicant's Ph.D. is in mathematics. However, a review of the applicant's 20 years of experience shows that previous positions held include the post of dean of academic affairs at a large university, as well as several years' experience in educational research

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

comparable to the work of the position being filled. In this example, the applicant should be rated qualified, since it is obvious that the lack of the specific educational requirement is more than offset by the long history of successful, high-level, directly applicable experience.

- An applicant concluded his formal education at the end of the first semester of his senior year to pursue a research opportunity in his major field with a private company. The research led to advancement of the state of the art in his field. The applicant became a permanent employee with the company and worked there for 6 years, advancing to a senior position. During this time, the applicant took continuing education courses in his field. The basic educational requirement specified in a standard is considered to be met if the applicant has (1) successfully demonstrated the ability to perform work at the full performance level in the appropriate professional field, and (2) demonstrated a good knowledge of the specialty field of the position to be filled and the related and underlying discipline comparable to at least a bachelor's degree.
- The qualification standard for the Microbiology Series, GS-403, requires 20 semester hours of microbiology plus 20 semester hours in the physical and mathematical sciences. An applicant has 23 semester hours in microbiology and 17 semester hours in the physical and mathematical sciences. Since the applicant meets the 20-semester-hour requirement in microbiology, the primary requirement, the 3 hours in excess of 20 can be used to meet the 20-semester-hour requirement in the physical and mathematical sciences.

Applicants may be considered to have satisfied the minimum qualification requirements for a position if they can present evidence that clearly justifies a high evaluation of their competence, such as one of the following:

1. Registration as a professional engineer or architect; or
2. A substantial record of experience, achievement, and publications that demonstrates eminence in the appropriate professional/scientific field.

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

5. Crediting Combinations of Education and Experience

Education and experience can be combined to meet the minimum qualification requirements, as allowed in the applicable standard. To combine education and experience, determine the applicant's total qualifying experience as a percentage of the experience required for the grade level. Then determine the applicant's education as a percentage of the education required for the grade level. Finally, add the two percentages. The total percentage must equal at least 100 percent to qualify an applicant for that grade level. The group coverage standards in section IV-A contain examples of how to combine education and experience. Note that only graduate education in excess of the amount required for the next lower grade level can be combined with the appropriate level of experience to qualify applicants for positions at grades GS-9 and GS-11. For example, if a school's requirement for 1 year of graduate study is 18 semester hours, only graduate education beyond the first 18 semester hours or 27 quarter hours can be combined with GS-7 level experience to qualify for a GS-9 level position. Thus, 9 semester hours of graduate education and 6 months of GS-7 level experience cannot be combined to qualify for a GS-9 position.

6. Using Selective Factors

It is critical for the IHS SPOs to clearly and adequately identify the requirements of a position in the vacancy announcement so that applicants understand the basis on which their application will be evaluated. In most instances, this explicit description of required general or specialized experience in the vacancy announcement will ensure that applicants possess the necessary KSAs to perform the work of a position. (See section II.F.3.(c)).

There are some positions, however, where specific qualifications are absolutely required because a person cannot perform successfully in the position without such qualifications. These can include requirements for specific or Federal or State requirements for licensure or certification. In such instances, it may be appropriate to consider the use of selective factors. A selective factor becomes part of the minimum requirements for a position, and applicants who do not meet it are ineligible for further consideration. A selective factor can be used for positions at any grade level where its use would be appropriate.

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

The use of selective factors is especially helpful in situations where a list of eligibles is used, since individuals on the register would meet the requirements of the published qualification standard, but might not meet any additional, organization-specific requirement(s). Their use would also be helpful in those situations in which an the IHS has a nationwide vacancy announcement, but has a special requirement for positions in a particular location because a duty performed is not routinely associated with the occupation, e.g., a contact representative position that requires fluency in Spanish.

If an IHS SPO wishes to use a selective factor when filling a vacancy, it must document the basis. The documentation must list the selective factor(s), include the position description or other official communication describing the duties and responsibilities of the position, and describe why selective factors are necessary for successful performance.

Selective factors cannot (1) be so narrow that they preclude from consideration applicants who could perform the duties of the position, (2) require KSAs that could be learned readily during the normal period of orientation to the position, (3) be so specific as to exclude from consideration applicants without prior Federal experience, or (4) be so restrictive that they run counter to the goal of placing applicants from priority placement lists established to assist in the placement of employees affected by reductions in force.

It is essential that any selective factors used in filling a particular vacancy be included in the vacancy announcement. The IHS cannot require applicants to meet selective factors that were not established prior to advertising a position, nor can they require selective factors that were not made known to applicants.

The KSAs gained from experience and education may be used as selective factors in accordance with the following instructions:

- (a) *Experience*--The IHS managers can request that personnel offices honor selective factors that could have been acquired only through experience where the position requires program, regulatory, and/or procedural knowledge, such as knowledge of personnel, budget, laboratory, or purchasing procedures. Education alone may not have provided all the KSAs required for such a position; however, education supplemented by work such as internships, field work, and cooperative education that provided the program, regulatory, or procedural knowledge may be

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

qualifying for the position. It is important to note that experience requirements can not be made so specific that only employees of the organization filling a particular vacancy could meet the minimum requirements, as this would inappropriately restrict competition.

(b) Education--If the applicable standard allows for qualifying either on the basis of experience or education, the SPOs cannot require that applicants qualify on the basis of education only. However, this restriction does not preclude SPOs from evaluating an applicant's education to determine if it provided the KSAs required to meet selective or quality ranking factors. Additionally, program offices can request that consideration be limited to fields of study that provide the specific for a particular position when considering the qualifications of individuals applying on the basis of education. (For example, a SPO has a vacancy for a physicist position specializing in a branch of solid state physics. Although the standard permits qualifying on the basis of a major in physics or a related field, the SPO may wish to limit consideration to those applicants with educational backgrounds that provided knowledge of the particular branch of solid state physics.)

The following is an example of a selective factor that *may be* appropriate for the IHS positions having direct contact with the AI/AN population served:

- Ability to speak and understand the language of the AI/AN population in the service area where the position is assigned.

7. Using Quality Ranking Factors

The IHS SPOs can use quality ranking factors to help determine which of the basically qualified applicants are likely to be better qualified for a position. Quality ranking factors are KSAs that could be expected to significantly enhance performance in a position, but, unlike selective factors, are not essential for satisfactory performance. (For example, skill in public speaking might be used as a quality ranking factor for a position in an organization where policy changes are communicated to the public in several ways, and oral communication is one of the ways.) Applicants who possess the quality ranking factors identified for a position being filled can be ranked above those who do not, but no one can be rated ineligible solely for failure to possess a quality ranking factor.

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GENERAL POLICIES AND INSTRUCTIONS (continued)

The KSAs used as quality ranking factors may have been obtained through either experience or education. Therefore, relevant academic courses can provide evidence of possession of quality ranking factors even for occupations where their use as selective factors is prohibited. This would be particularly true at entry grade levels where many applicants may not possess experience that demonstrated the applicable KSAs. For example, a budget analyst position may involve duties such as determining whether the budget requests of several divisions in an organization are justified based on economic forecasts. While no particular courses are required for basic eligibility as a budget analyst, applicants who meet the minimum qualification requirements on the basis of education, courses such as business administration, finance, or economics, might reasonably be expected to enhance performance in the position.

The following are examples of quality ranking factors that *may be* appropriate for the IHS positions having direct contact with the AI/AN population served:

- Knowledge of the culture, customs, and traditions of the AI/AN population in the service area where the position is assigned.
- Ability to speak and understand the language of the AI/AN population in the service area where the position is assigned.

8. Special Inservice Placement Provisions

Inservice placement applicants may meet minimum qualification requirements based on education (including superior academic achievement) and/or experience, as specified in the appropriate qualification standard. To qualify, they must usually have the same level and type of experience or education that is required for initial appointment. However, there are some special provisions, as follows:

- (a) *Minimum educational requirements*--When there is a change to or addition of minimum educational requirements to an occupational series, Federal employees currently classified to that series do not have to meet the new educational requirements. (Also see (b) below.)

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GENERAL POLICIES AND INSTRUCTIONS (continued)

(b) *The "add-on rule"*--If an employee qualified for his/her current position by meeting the provisions of the appropriate IHS standard, the personnel specialist need only add on the difference between the length of experience required for the current position and the length of experience required for the proposed position. For example, a GS-2 employee in a clerical position qualified for his or her current position on the basis of high school graduation. The employee would be eligible for promotion to GS-3 after 3 months of employment, since the difference between the experience requirements for GS-2 (3 months) and the experience requirements for GS-3 (6 months) is 3 months. Note that at the GS-2 level, a high school diploma is credited the same as 3 months of experience.

When an employee has been placed in a position based on modification of a qualification standard under this provision, the employee is considered to be fully qualified. The "add-on rule" may be applied in any subsequent in-service placement action.

The "add-on rule" can be used even when the current and proposed positions are classified in different series if the level and quality of the experience required for the two series are not significantly different. The "add-on rule" can be used for any inservice placement action as defined in this Manual; however, the following restrictions apply:

- If minimum educational requirements have been established or changed for an employee's former series, the "add-on rule" can be used to return the employee to that series only if:
 - (1) The employee has maintained current occupational knowledge through employment or education and meets any licensure or certification requirements; and
 - (2) Comparison of the position descriptions or other documentation of work performed shows clearly that the employee's former position included all the basic duties of the position to be filled and provided the KSAs necessary to perform the duties of the new position. (This is particularly important when a minimum educational requirement has been added to an occupational series that did not have one when the employee served in it. In that instance, some positions formerly classified in the series may not

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

have required full occupational knowledge and are now classified in a different series.)

- If an employee has been placed in a position based on waiver of qualification requirements, the "add-on rule" does not apply, since the waiver provisions are normally applicable to that position only.

*(c) Modifying experience requirements for certain inservice placement actions--*The IHS may determine that an individual can successfully perform the work of a position even though that person may not meet all the requirements in the qualification standard. In that situation, the SPOs may modify qualification standards for reassignments, voluntary changes to lower grades, transfers, reinstatements, and repromotions to a grade not higher than a grade previously held when the applicant's background includes related experience that provided the KSAs necessary for successful job performance. This authority should be used only when there is a reasonable likelihood that the employee will successfully make the transition to the new position, and cannot be used for directed reassignments to positions in which an employee obviously would not be able to perform the work.

This authority is not to be used for placement to a higher grade, except where the employee previously held a position at that grade or highergrade levels. This authority can be used to place an employee in a position with greater promotion potential than the position currently or previously held. If the merit promotion plan requires employees to compete for the position, the vacancy announcement must specify the qualification requirements to be met. The experience accepted as qualifying should equip the employee to meet the critical elements set out in the performance standard for the position. This provision does not authorize the SPOs to disregard minimum educational, licensure, or certification requirements specified in the standards.

The use of a modified standard should be documented sufficiently to show that it was intentional, and that the assignment did not result from misinterpretation of the standard. When an employee has been placed in a position based on modification of a qualification standard under this provision, the "add-on rule" may be applied in any subsequent inservice placement action.

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GENERAL POLICIES AND INSTRUCTIONS (continued)

- (d) *Experience level required for promotion in one-grade interval series.* In a one-grade interval series, experience at the second lower grade level can be credited when there is no position in the normal line of progression that is one grade lower than the position being filled. When this provision is used for promotions requiring competition under the IHS merit promotion plan, the fact that employees can qualify with at least 1 year at either the next lower level or the second lower level must be stated in any vacancy announcement. (Also see section II.F.3.(o)).
- (e) *Crediting education or training for promotion--*Education or training can be credited as experience towards promotion for employees who are detailed or are granted leave without pay for the purpose of obtaining specialized knowledge and skills. The IHS must determine that the education or training contributes materially to the competence of the employee in his/her work and that the employee possesses the KSAs needed for successful performance in the position to be filled. This education cannot be credited again towards meeting the basic educational requirements in a standard. (See section II.F.3.(i)).

9. Other Requirements or Provisions

- (a) *Citizenship--*The SPOs must adhere to the following restrictions regarding U.S. citizenship when evaluating persons seeking Federal employment:
- The annual IHS appropriation and the Treasury, Postal Service, and General Government Appropriation Act ban on paying aliens from other countries; and
 - The immigration law (title 8 U.S.C. 1324a) on employing aliens, unless they are lawfully admitted for permanent residence or otherwise authorized to be employed.
- (b) *Medical/Physical--*The principles by which the IHS may establish specific medical standards or physical requirements is discussed in 5 CFR 339. In general, there must be a direct relationship between the medical standard or physical requirement and the actual duties of the position being filled. Failure to meet an established medical standard or physical requirement means that the individual is not qualified for the position *unless* there is sufficient evidence that he or she can perform the duties of the position safely and efficiently despite a condition that would normally be disqualifying. The IHS must provide reasonable

QUALIFICATION STANDARDS OPERATING MANUAL

GENERAL POLICIES AND INSTRUCTIONS (continued)

accommodation to qualified individuals with disabilities in accordance with Equal Employment Opportunity Commission (EEOC) regulations.

Positions with sedentary, light, or moderately active duties are covered by the following medical standard:

Applicants must be physically and mentally able to perform efficiently the essential functions of the position, with or without reasonable accommodation, without hazard to themselves or others. Depending on the essential duties of a specific position, usable vision, color vision, hearing, or speech may be required. However, in most cases, a specific physical condition or impairment will not automatically disqualify an applicant for appointment. The loss or impairment of a specific function may be compensated for by the satisfactory use of a prosthesis or mechanical aid. Reasonable accommodation, in accordance with title 29 CFR 1614, must also be considered in determining an applicant's ability to perform the duties. Also, all positions involving Federal motor vehicle operation carry the additional medical requirements specified in (e) below.

Positions with specific medical requirements and that involve arduous/hazardous duties or require a high standard of human reliability are identified in sections III.A. and VI of this Manual. For such positions, the medical requirements are based on the arduous or hazardous nature of the duties typically performed in most of the positions covered. However, since individual positions may not include all such duties, a physical condition or impairment may be disqualifying for employment only if there is a direct relationship between the condition and the nature of the duties of the specific position to be filled. In some instances, a physical impairment will not disqualify an applicant for appointment if the condition is compensated for by a satisfactory prosthesis, mechanical aid, or by reasonable accommodation. Also, all positions involving Federal motor vehicle operation carry the additional medical requirements specified in (e) below.

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GENERAL POLICIES AND INSTRUCTIONS (continued)

- (c) *Age--Minimum entry age requirements.* The principles on which minimum entry age requirements may be established is discussed in 5 USC 3301. A minimum age requirement ensures that applicants have the maturity necessary for successful job performance and that Federal Government hiring practices are not in conflict with the general objective of encouraging students to complete their basic education. Minimum entry age requirements must be waived for persons entitled to veterans preference, unless it is determined that such an age restriction is essential for performance of the duties of the position.

Generally, unless a different minimum entry age is contained in the standard, applicants for any position in the IHS excepted service must be (1) at least 18 years old, or (2) at least 16 years old *and*:

- Have graduated from high school or been awarded a certificate equivalent to graduating from high school; or
- Have completed a formal vocational training program; or
- Have received a statement from school authorities agreeing with their preference for employment rather than continuing their education; or
- Be currently employed in a secondary school *and* either work only during school vacation periods or work part-time during the school year under a formal student employment program.

Applications may be considered from individuals who meet one of the above conditions and will reach the age of 16 prior to or on the date they report to work.

In addition to the above, organizations must observe the provisions of the Fair Labor Standards Act, as well as Federal, State, and local laws that relate to the employment of minors in hazardous positions or in positions requiring the use of firearms.

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- (d) *Licensure, certification, and other requirements or provisions*--Applicants for positions in some occupational series must meet certification, licensure, or registration requirements in addition to meeting experience and/or educational requirements, if so required by law. In other series, applicants can qualify fully on the basis of licensure, certification, registration, or special training as an alternative to experience and/or educational requirements. Such requirements or provisions are noted in the qualification standards or individual occupational requirements for those series.

The IHS can establish requirements for specific credentials (e.g., registration, licenses, or certificates) when such credentials are necessary for satisfactory job performance. However, it is important that the possession of credentials not be overemphasized as a means of determining whether applicants meet minimum qualification requirements in a series where the standard permits qualification on the basis of experience or education. Staffing personnel must examine the background of all applicants and give full credit to any acceptable experience, as well as to education or training.

- (e) *Motor vehicle incidental operator requirements*--Title 40 U.S.C. 471 requires issuance of regulations governing executive agencies in authorizing their civilian personnel to operate Government-owned or leased motor vehicles within the U.S., the District of Columbia, Puerto Rico, and the possessions of the U.S.

Incidental operators are employees, other than those occupying a position officially classified as a motor vehicle operator, who are required to operate a Government-owned or -leased vehicle to properly carry out their assigned duties. To qualify as an incidental operator, an employee must possess a valid State license, have a safe driving record, pass a road test, and demonstrate that he or she is medically qualified to operate the appropriate motor vehicle safely.

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The IHS waives the road test for incidental operators:

- (1) who operate vehicles of one-ton or less and possess a current driver's license from one of the 50 states, the District of Columbia, or Puerto Rico, where domiciled or principally employed, except for incidental operators of buses or vehicles used for transportation of dangerous material, law enforcement, or emergency services;
- (2) who possess a current driver's license, for the specific class of vehicle operated, from one of the 50 states, the District of Columbia, or Puerto Rico, where domiciled or principally employed; or
- (3) in accordance with a specific authorization by the IHS.

The Director, IHS, may waive the road test when it is not practical to apply it and then only for an employee whose competence as a driver has been established by his/her past driving record.

In general, no medical condition may be considered disqualifying unless there is evidence that it is likely to adversely affect job performance or safety to an unacceptable degree. At least once every 4 years, the IHS will ensure that employees who operate Government-owned or -leased vehicles are medically able to do so without undue risk to themselves or others. Where there is a question about an employee's ability to operate a motor vehicle safely, the employee may be referred for a medical examination.

10. Supervisory Positions

All supervisory positions require a combination of subject-matter knowledge and skills and managerial abilities related to getting work done through other people, e.g., planning, assigning, and reviewing work, and evaluating performance. The relative importance of supervisory skills and subject-matter knowledge will depend on the specific duties of the position being filled. Therefore, applicants for supervisory positions may be evaluated using the appropriate standard for the series and/or the supervisory standard in section IV-A of this Manual. In determining the level of subject-matter knowledge required, it should be kept in mind that the subject-matter duties are not always classified at the same grade level as the supervisory duties.

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GENERAL POLICIES AND INSTRUCTIONS (continued)

In some instances, employees are assigned to supervise work in a series other than the one to which their positions are classified, and it will be necessary to determine whether this supervision provided them with appropriate experience to qualify for a position in the series supervised. For example, was the supervision purely administrative in nature, or was the supervisor also required to have substantial subject-matter knowledge of the work performed to provide technical direction? If it is determined that the supervisor provided technical direction, the grade-level of the subject-matter duties involved should be determined so that they may be appropriately credited.

G. UPDATING QUALIFICATION STANDARDS

The goal is to keep the requirements in the qualification standards in this Manual as current as possible. Therefore, the IHS organizations are requested to inform the SPO of substantive changes to occupational or agency requirements so that the appropriate qualification standard can be revised. Additionally, if organizations are having difficulty in obtaining well qualified applicants on the basis of current qualification requirements, they should contact the SPO so that a determination can be made on whether the standard is in need of revision. Only the IHS headquarters personnel office can revise excepted service qualification standards.

H. ESTABLISHMENT OF ADDITIONAL STANDARDS

The standards contained in this Manual, adapted by use of selective factors where necessary, should fit most jobs. The need to establish separate standards may arise when the pattern of experience/education for certain occupations/positions does not follow that of one of the published standards. The IHS headquarters SPO will determine the need to establish additional standards and lead such efforts with the cooperation of the SPOs.

QUALIFICATION STANDARDS OPERATING MANUAL
GENERAL POLICIES AND INSTRUCTIONS (continued)

REFERENCES AND SOURCES

1. *Introduction to the Position Classification Standards*
 2. *Handbook of Occupational Groups and Series*
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1. *Directory of Postsecondary Institutions*
U.S. Department of Education
Public Information Division
Education Information Branch
Washington, DC 20208-1404
(202) 219-1651
2. *Nationally Recognized Accrediting Agencies and Associations*
U.S. Department of Education
Office of Postsecondary Education
Higher Education Management Services
Washington, DC 20202
(202) 708-8922
3. *Guides to the Academic Placement of Students from Foreign Countries in Educational Institutions of the United States of America*
American Association of Collegiate Registrars and Admissions Officers (AACRAO)
One Dupont Circle, N.W., Suite 330
Washington, DC 20036-1110
(202) 293-9161
4. *Accredited Institutions of Postsecondary Education American Council on Education (ACE) for The Council on Postsecondary Accreditation (COPA)*
One Dupont Circle, N.W., Suite 305
Washington, DC 20036
(202) 452-1433

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5. *The HEP Higher Education Directory*
Higher Education Publications, Inc. (HEP)
2946 Sleepy Hollow Road
Falls Church, Virginia 22044
(703) 532-2300

6. *Peterson's Guides to Two-Year Colleges*
Peterson's Guides to Four-Year Colleges
Peterson's Guides, Inc.
P.O. Box 2123
Princeton, New Jersey 08543-2123A

7. *Association of College Honor Societies - Booklet of Information*
4990 Northwind Drive, Suite 140
East Lansing, Michigan 48823-5031
(517) 351-8335

8. *Baird's Manual of American College Fraternities*
Baird's Manual Foundation
3901 West 86th Street, Suite 390
Indianapolis, Indiana 46268



**INDIAN HEALTH SERVICE
EXCEPTED SERVICE QUALIFICATION STANDARDS**

QUALIFICATION STANDARDS OPERATING MANUAL

SECTION III. INDEX TO QUALIFICATION STANDARDS

Two indexes are included to identify and locate the qualification requirements described in this Manual. The first index (III-A) is an alphabetical list by series or position title (whichever is applicable) that is designed to help users locate the appropriate series reference. The second index (III-B) is in numerical order by series. This index indicates whether the positions are covered by a group coverage or individual qualification standard, and if there are minimum educational requirements, licensure or certification requirements, and/or specific medical requirements. The purpose of the index is to help users of the Manual find material pertaining to particular occupations or positions. The index cannot be used to make qualifications determinations.

Many occupations or positions that are covered by group coverage qualification standards have individual occupational requirements. The notation "*" included after the series title in a group standard identifies positions with individual occupational requirements. For most occupational series there is only one entry in the index, indicating that all positions in the series are covered either by the same qualification standard or by individual occupational requirements, as noted. However, some occupational series are covered by a separate individual standard or have different individual occupational requirements. For positions that do not follow the same qualifications pattern as others in the same series or have unique requirements that warrant a specific reference, a separate entry is provided. Therefore, users of the index should scan all of the entries for a particular series to make sure that they identify the standard that applies to the position(s) to be filled.

An "X" in the minimum educational requirements column indicates that applicants must normally possess specified course work. Information about the educational requirements for such positions is included in section IV of this Manual. Users should also be familiar with the material in section II.F.4. of the "General Policies and Instructions" (section II) of the Manual related to minimum educational requirements.

An "X" in the licensure or certification requirements column indicates that applicants must possess a license or certificate for all or some positions, as shown in the individual occupational requirements in section IV-B.

An "X" in the medical requirements column indicates that there are specific medical requirements for the positions. Users should refer to section IV-B and/or V for further information.



QUALIFICATION STANDARDS OPERATING MANUAL

SECTION III-A. Alphabetical Index by Title

Accounting	GS-510	Education and Training Technician (1 and 2 Grade Interval)	GS-1702
Accounting Technician	GS-525	Education and Vocational Training	GS-1710
Administrative Officer	GS-341	Electrical Engineering	GS-850
Archeology	GS-193	Electronics Engineering	GS-855
Architecture	GS-808	Electronics Technician	GS-856
Attorney	GS-905	Employee Development	GS-235
Audiovisual Production	GS-1071	Employee Relations	GS-230
Auditing	GS-511	Engineering and Architecture Student Trainee	GS-899
Autopsy Assistant	GS-625	Engineering Drafting	GS-818
Biological Science Student Trainee	GS-499	Engineering Technician	GS-802
Biological Science Technician	GS-404	Environmental Engineering	GS-819
Biomedical Engineering	GS-858	Environmental Health Technician	GS-698
Budget Analysis	GS-560	Equal Employment Opportunity	GS-260
Budget Clerical and Assistance	GS-561	Equal Opportunity Assistance	GS-361
Chemistry	GS-1320	Equal Opportunity Compliance	GS-360
Civil Engineering	GS-810	Equipment Operator	GS-350
Civilian Pay	GS-544	Equipment Specialist	GS-1670
Claims Clerical	GS-998	Facility Management	GS-1640
Clerk-Stenographer and Reporter	GS-312	Financial Administration and Program	GS-501
Clerk-Typist	GS-322	Financial Clerical and Assistance	GS-503
Coding	GS-357	Financial Management	GS-505
Communications Specialist	GS-393	Freight Rate	GS-2131
Computer Clerk and Assistant	GS-335	General Arts and Information	GS-1001
Computer Engineering	GS-854	General Biological Sciences	GS-401
Computer Operation	GS-332	General Business and Industry	GS-1101
Computer Science	GS-1550	General Education and Training	GS-1701
Computer Specialist	GS-334	General Engineering	GS-801
Construction Control	GS-809	General Facilities and Equipment	GS-1601
Contact Representative	GS-962	General Health	GS-601
Contracting	GS-1102	General Physical Science	GS-1301
Corrective Therapist	GS-635	General Supply	GS-2001
Correspondence Clerk	GS-309	General Telecommunications	GS-392
Data Transcriber	GS-356	Health Aid and Technician	GS-640
Dental Assistant	GS-681	Health Physics	GS-1306
Dental Hygiene	GS-682	Health System Administration	GS-670
Dental Laboratory Aid and Technician	GS-683	Health Systems Specialist	GS-671
Dental Officer	GS-680	Hospital Housekeeping Management	GS-673
Diagnostic Radiologic Technologist	GS-647	Housing Management	GS-1173
Dietitian and Nutritionist	GS-630	Industrial Hygiene	GS-690
Dispatching	GS-2151	Industrial Property Management	GS-1103
Editorial Assistant	GS-1087		

QUALIFICATION STANDARDS OPERATING MANUAL

SECTION III-A. Alphabetical Index by Title (continued)

Information Receptionist	GS-304	Optometrist	GS-662
Instructional Systems	GS-1750	Orthotist and Prosthetist	GS-667
Inventory Management	GS-2010	Paralegal	GS-950
Labor Relations	GS-233	Pathology Technician	GS-646
Language Clerical	GS-1046	Personnel Clerical and Assistance	GS-203
Language Specialist	GS-1040	Personnel Management	GS-201
Librarian	GS-1410	Personnel Staffing	GS-212
Library Technician	GS-1411	Pharmacist	GS-660
Logistics Management	GS-346	Pharmacy Technician	GS-661
Mail and File	GS-305	Pharmacology	GS-405
Management and Program Analysis	GS-343	Physical Science	GS-1301
Management and Program Clerical Assistance	GS-344	Physical Science Technician	GS-1311
Manpower Development	GS-142	Physical Therapist	GS-633
Manual Arts Therapist	GS-637	Physician's Assistant	GS-603
Mathematical Statistician	GS-1529	Podiatrist	GS-668
Mechanical Engineering	GS-380	Position Classification	GS-221
Medical and Health Student Trainee	GS-699	Practical Nurse	GS-620
Medical Anthropology	GS-1529	Procurement Clerical and Technician	GS-1106
Medical Clerk	GS-679	Professional Engineering	GS-800
Medical Instrument Technician	GS-649	Program Management	GS-340
Medical Officer	GS-602	Property Disposal	GS-1104
Medical Records Administration	GS-669	Property Disposal Clerical and Technician	GS-1107
Medical Records Technician	GS-675	Psychology	GS-180
Medical Supply Aid and Technician	GS-622	Psychology Aid and Technician	GS-181
Medical Technician	GS-645	Public Affairs	GS-1035
Medical Technologist	GS-644	Public Health Educator	GS-1725
Messenger	GS-302	Public Health Program Specialist	GS-685
Microbiology	GS-403	Purchasing	GS-1105
Military Personnel Clerical and Technician	GS-204	Quality Assurance	GS-1910
Military Personnel Management	GS-205	Realty	GS-1170
Miscellaneous Administration and Program	GS-301	Recreation Aid and Assistant	GS-189
Miscellaneous Clerk and Assistant	GS-303	Recreation/Creative Arts Specialist	GS-188
Nurse	GS-610	Rehabilitation Therapy Assistant	GS-636
Nursing Assistant	GS-621	Reporting Stenographer	GS-312
Occupational Therapist	GS-631	Respiratory Therapist	GS-651
Office Automation Clerical and Assistance	GS-326	Safety and Occupational Health Management	GS-018
Operations Research	GS-1515	Safety Engineering	GS-803
		Safety Technician	GS-019

QUALIFICATION STANDARDS OPERATING MANUAL

SECTION III-A. Alphabetical Index by Title (continued)

Safety Technician Student	
Trainee	GS-099
Sales Store Clerical	GS-2091
Sanitarian	GS-688
Secretary	GS-318
Security Guard	GS-085
Shorthand Reporter	GS-312
Social Science	GS-101
Social Science Aid and	
Technician	GS-102
Social Science Student Trainee	GS-199
Social Services	GS-187
Social Services Aid and Assistant	GS-186
Social Work	GS-185
Sociology	GS-184
Speech Pathology and Audiology	GS-665
Statistical Assistant	GS-1531
Statistician	GS-1530
Supply Clerical and Technician	GS-2005
Supply Program Management	GS-2003
Support Services Administration	GS-342
Technical Information Services	GS-1412
Technical Writing and Editing	GS-1083
Telecommunications	GS-391
Telephone Operating	GS-382
Therapeutic Radiologic	
Technologist	GS-648
Toxicology	GS-415
Traffic Management	GS-2130
Training Instruction	GS-1712
Transportation Clerk and	
Assistant	GS-2102
Transportation Specialist	GS-2101
Travel Clerk	GS-2132
Visual Information	GS-1084
Vocational Rehabilitation	GS-1715
Voucher Examining	GS-540
Writing and Editing	GS-1082



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SECTION III. INDEX TO QUALIFICATION STANDARDS

III-B. Series Number Order

TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-018 Safety and Occupational Health Management Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-1			
GS-019 Safety Technician Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-2			
GS-085 Security Guard Series	Individual Standard	TS-17;June 1997 IV-B-			
GS-099 General Student Trainee Series	Student Trainee	TS-17;June 1997 IV-B-5			
GS-101 Social Science Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-5			
GS-102 Social Science Aid and Technician Series	Tec & Med Sup	TS-17;June 1997 IV-B-5			
GS-142 Manpower Development Series	Adm & Mgmt	TS-17;June 1997 IV-B-5			
GS-180 Psychology Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-5	X		
GS-181 Psychology Aid and Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-6			
GS-184 Sociology Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-7	X		
GS-185 Social Work Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-7	X		

QUALIFICATION STANDARDS OPERATING MANUAL

TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-186 Social Services Aid and Assistant Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-7			
GS-187 Social Services Series	Individual Standard	TS-17;June 1997 IV-B-8			
GS-188 Recreation Specialist Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-8			
GS-189 Recreation Aid and Assistant Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-10			
GS-190 Medical Anthropology Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-11	X (some pos)		
GS-193 Archeology Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-12			
GS-199 Social Science Student Trainee Series	Student Trainee	TS-17;June 1997 IV-B-13			
GS-201 Personnel Management Series	Adm & Mgmt	TS-17;June 1997 IV-B-13			
GS-203 Personnel Clerical and Technician Series	Cler & Adm Sup	TS-17;June 1997 IV-B-13			
GS-204 Military Personnel Clerical and Assistance Series	Cler & Adm Sup	TS-17;June 1997 IV-B-13			
GS-205 Military Personnel Clerical and Assistance Series	Adm & Mgmt	TS-17;June 1997 IV-B-13			
GS-212 Personnel Staffing Series	Adm & Mgmt	TS-17;June 1997 IV-B-14			

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TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-221 Position Classification Series	Adm & Mgmt	TS-17;June 1997 IV-B-14			
GS-230 Employee Relations Series	Adm & Mgmt	TS-17;June 1997 IV-B-14			
GS-233 Labor Relations Series	Adm & Mgmt	TS-17;June 1997 IV-B-14			
GS-235 Employee Development Series	Adm & Mgmt	TS-17;June 1997 IV-B-14			
GS-260 Equal Employment Opportunity Series	Adm & Mgmt	TS-17;June 1997 IV-B-14			
GS-301 Miscellaneous Administration and Program Series	Adm & Mgmt	TS-17;June 1997 IV-B-14			
GS-302 Messenger Series	Cler & Adm Sup	TS-17;June 1997 IV-B-14			
GS-303 Miscellaneous Clerk and Assistant Series	Cler & Adm Sup	TS-17;June 1997 IV-B-15			
GS-304 Information Receptionist Series	Cler & Adm Sup	TS-17;June 1997 IV-B-15			
GS-305 Mail and File Series	Cler & Adm Sup	TS-17;June 1997 IV-B-15			
GS-309 Correspondence Clerk Series	Cler & Adm Sup	TS-17;June 1997 IV-B-15			
GS-312 Clerk-Stenographer and Reporter Series	Cler & Adm Sup	TS-17;June 1997 IV-B-15			

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TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-318 Secretary Series	Cler & Adm Sup	TS-17;June 1997 IV-B-15			
GS-322 Clerk-Typist Series	Cler & Adm Sup	TS-17;June 1997 IV-B-15			
GS-326 Office Automation Clerical and Assistance Series	Cler & Adm Sup	TS-17;June 1997 IV-B-15			
GS-332 Computer Operation Series	Cler & Adm Sup	TS-17;June 1997 IV-B-15			
GS-334 Computer Specialist Series	Adm & Mgmt	TS-17;June 1997 IV-B-16			
GS-335 Computer Clerk and Assistant Series	Cler & Adm Sup	TS-17;June 1997 IV-B-18			
GS-340 Program Management Series	Adm & Mgmt	TS-17;June 1997 IV-B-18			
GS-341 Administrative Officer Series	Adm & Mgmt	TS-17;June 1997 IV-B-18			
GS-342 Support Services Administration Series	Individual Standard	TS-17;June 1997 IV-B-19			
GS-343 Management and Program Analysis Series	Adm & Mgmt	TS-17;June 1997 IV-B-20			
GS-344 Management and Program Clerical and Assistance Series	Cler & Adm Sup	TS-17;June 1997 IV-B-20			
GS-346 Logistics Management Series	Adm & Mgmt	TS-17;June 1997 IV-B-20			
GS-350 Equipment Operator Series	Cler & Adm Sup	TS-17;June 1997 IV-B-20			

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QUALIFICATION STANDARDS OPERATING MANUAL

TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-356 Data Transcriber Series	Cler & Adm Sup	TS-17;June 1997 IV-B-20			
GS-357 Coding Series	Cler & Adm Sup	TS-17;June 1997 IV-B-21			
GS-360 Equal Opportunity Compliance Series	Adm & Mgmt	TS-17;June 1997 IV-B-21			
GS-361 Equal Opportunity Assistance Series	Cler & Adm Sup	TS-17;June 1997 IV-B-21			
GS-382 Telephone Operating Series	Cler & Adm Sup	TS-17;June 1997 IV-B-21			
GS-391 Telecommunications Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-21			
GS-392 General Telecommunications Series	Cler & Adm Sup	TS-17;June 1997 IV-B-22			
GS-401 General Biological Science Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-22	X		
GS-403 Microbiology Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-23	X		
GS-404 Biological Science Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-24			
GS-405 Pharmacology Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-25	X		
GS-415 Toxicology Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-26	X		

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TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-499 Biological Science Student Trainee Series	Student Trainee	TS-17;June 1997 IV-B-26			
GS-501 Financial Administration and Program Series	Adm & Mgmt	TS-17;June 1997 IV-B-27			
GS-503 Financial Clerical and Assistance Series	Cler & Adm Sup	TS-17;June 1997 IV-B-27			
GS-505 Financial Management Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-27			
GS-510 Accounting Series	Adm & Mgmt	TS-17;June 1997 IV-B-27	X		
GS-511 Auditing Series	Cler & Adm Sup	TS-17;June 1997 IV-B-28	X		
GS-525 Accounting Technician Series	Cler & Adm Sup	TS-17;June 1997 IV-B-29			
GS-544 Civilian Pay Series	Cler & Adm Sup	TS-17;June 1997 IV-B-29			
GS-560 Budget Analysis Series	Adm & Mgmt	TS-17;June 1997 IV-B-29			
GS-561 Budget Clerical and Assistance Series	Cler & Adm Sup	TS-17;June 1997 IV-B-29			
GS-601 General health Science Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-30	X		
GS-602 Medical Officer Series	Individual Standard	TS-17;June 1997 IV-B-31	X	X	

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TITLE	QUALIFICATION STANDARD	TS#:DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-603 Physician's Assistant Series	Individual Standard	TS-17;June 1997 IV-B-36			
GS-610 Nurse Series	Individual Standard	TS-17;June 1997 IV-B-38	X	X	
GS-620 Practical Nurse Series	Individual Standard	TS-17;June 1997 IV-B-40		X	
GS-621 Nursing Assistant Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-41			
GS-622 Medical Supply Aid and Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-42			
GS-625 Autopsy Assistant Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-43			
GS-630 Dietitian and Nutritionist Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-43	X		
GS-631 Occupational Therapist Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-44	X		
GS-633 Physical Therapist Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-44	X	X	
GS-635 Corrective Therapist Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-45	X		
GS-636 Rehabilitation Therapy Assistant Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-45			
GS-637 Manual Arts Therapist Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-46	X		
GS-640 Health Aid and Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-47			

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TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-644 Medical Technologist Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-47	X		
GS-646 Pathology Technology Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-49			
GS-647 Diagnostic Radiologic Technologist Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-50		X	
GS-648 Therapeutic Radiologic Technologist Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-53		X	
GS-649 Medical Instrument Technical Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-54			
GS-651 Respiratory Therapist Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-55			
GS-660 Pharmacist Series	Individual Standard	TS-17;June 1997 IV-B-56	X	X	X
GS-661 Pharmacy Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-57			
GS-662 Optometrist Series	Individual Standard	TS-17;June 1997 IV-B-58	X	X	
GS-665 Speech Pathology and Audiology Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-59	X		
GS-667 Orthotic and Prosthetist Series	Individual Standard	TS-17;June 1997 IV-B-60			
GS-668 Podiatrist Series	Individual Standard	TS-17;June 1997 IV-B-62	X	X	

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TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-669 Medical Records Administration Series	Individual Standard	TS-17;June 1997 IV-B-63			
GS-670 Health Systems Administration Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-64			
GS-671 Health Systems Specialist Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-65			
GS-673 Hospital Housekeeping Management Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-66			
GS-675 Medical Records Technician Series	Cler & Adm Sup	TS-17;June 1997 IV-B-67			
GS-679 Medical Clerk Series	Cler & Adm Sup	TS-17;June 1997 IV-B-67			
GS-680 Dental Officer Series	Individual Standard	TS-17;June 1997 IV-B-68	X	X	X
GS-681 Dental Assistant Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-70		X	
GS-682 Dental Hygiene Series	Individual Standard	TS-17;June 1997 IV-B-72	X Comm. Health	X	
GS-683 Dental Laboratory Aid and Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-75			
GS-685 Public Health Program Specialist Series	Adm & Mgmt Sup + IOR	TS-17;June 1997 IV-B-76			
GS-688 Sanitarian Series	Individual Standard	TS-17;June 1997 IV-B-77			
GS-690 Industrial Hygiene Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-79	X		

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TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-698 Environmental Health Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-80			
GS-699 Medical and Health Student Trainee Series	Student Trainee	TS-17;June 1997 IV-B-80			
GS-800 All Professional Engineering Positions	Prof & Sci + IOR	TS-17;June 1997 IV-B-81	X		
GS-801 General Engineering Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-87	X		
GS-802 Engineering Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-87			
GS-803 Safety Engineering Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-88	X		
GS-808 Architecture Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-88			
GS-809 Construction Control Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-91			
GS-810 Civil Engineering Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-91			
GS-818 Engineering Drafting Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-92			
GS-819 Environmental Engineering Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-92	X		
GS-830 Mechanical Engineering Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-93	X		
GS-850 Electrical Engineering Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-93	X		

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QUALIFICATION STANDARDS OPERATING MANUAL

TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-854 Computer Engineering Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-93	X		
GS-855 Electronics Engineering Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-93	X		
GS-856 Electronics Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-93			
GS-858 Biomedical Engineering Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-94	X		
GS-899 Engineering and Architecture Student Trainee Series	Student Trainee	TS-17;June 1997 IV-B-94			
GS-905 Attorney Series	No qualification standards have been issued for this series.				
GS-950 Paralegal Series	Adm & Mgmt	TS-17;June 1997 IV-B-94			
GS-962 Contact Representative Series	Cler & Adm Sup	TS-17;June 1997 IV-B-95			
GS-998 Claims Clerical Series	Cler & Adm Sup	TS-17;June 1997 IV-B-95			
GS-1001 General Arts and Information Series - two grade interval positions	Adm & Mgmt	TS-17;June 1997 IV-B-95			
GS-1035 Public Affairs Series	Adm & Mgmt	TS-17;June 1997 IV-B-95			
GS-1040 Language Specialist Series	Adm & Mgmt	TS-17;June 1997 IV-B-96			

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TITLE	QUALIFICATION STANDARD	TS#:DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-1046 Language Clerical Series	Cler & Adm Sup + IOR	TS-17;June 1997 IV-B-97			
GS-1071 Audiovisual Production Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-98			
GS-1087 Editorial Assistance Series	Cler & Adm Sup	TS-17;June 1997 IV-B-100			
GS-1101 General Business and Industry Series - one grade internal positions	Cler & Adm Sup	TS-17;June 1997 IV-B-100			
GS-1101 General Business and Industry Series - two grade interval positions	Adm & Mgmt	TS-17;June 1997 IV-B-100			
GS-1102 Contracting Series	Individual Standard	TS-17;June 1997 IV-B-101	x (GS-5 & above)		
GS-1103 Industrial Property Disposal Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-105			
GS-1104 Property Disposal Series	Adm & Mgmt	TS-17;June 1997 IV-B-106			
GS-1105 Purchasing Series	Cler & Adm Sup	TS-17;June 1997 IV-B-106			
GS-1106 Procurement clerical and Technician Series	Cler & Adm Sup	TS-17;June 1997 IV-B-106			
GS-1107 Property Disposal Clerical and Technician Series	Cler & Adm Sup	TS-17;June 1997 IV-B-106			
GS-1170 Realty Series	Adm & Mgmt	TS-17;June 1997 IV-B-106			

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TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-1173 Housing Management Series	Adm & Mgmt	TS-17;June 1997 IV-B-106			
GS-1301 General Physical Science Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-106	X		
GS-1306 Health Physics Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-107	X		
GS-1311 Physical Science Technician Series	Tec & Med Sup + IOR	TS-17;June 1997 IV-B-108			
GS-1320 Chemistry Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-108	X		
GS-1410 Librarian Series	Individual Standard	TS-17;June 1997 IV-B-109			
GS-1411 Library Technician Series	Cler & Adm Sup	TS-17;June 1997 IV-B-114			
GS-1412 Technical Information Services Series	Individual Standard	TS-17;June 1997 IV-B-114			
GS-1515 Operations Research Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-116	X		
GS-1529 Mathematical Statistician Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-117	X		
GS-1530 Statistician Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-118	X		
GS-1531 Statistical Assistant Series	Cler & Adm Sup	TS-17;June 1997 IV-B-118			
GS-1550 Computer Science Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-119	X		

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TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-1601 General Facilities and Equipment Series	Individual Standard	TS-17;June 1997 IV-B-120			
GS-1640 Facility Management Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-122			
GS-1670 Equipment Specialist Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-123			
GS-1701 General Education and Training Series	Prof * Sci + IOR	TS-17;June 1997 IV-B-124	X		
GS-1702 Education and Training Technician Series - one grade interval positions	Cler & Adm Sup	TS-17;June 1997 IV-B-124			
GS-1702 Education and Training Technician Series - two grade interval positions	Adm & Mgmt	TS-17;June 1997 IV-B-124			
GS-1710 Education and Vocational Training Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-125	X		
GS-1712 Training Instruction Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-126			
GS-1715 Vocational Rehabilitation	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-127			
GS-1725 Public Health Educator Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-128	X		
GS-1750 Instructional Systems Series	Prof & Sci + IOR	TS-17;June 1997 IV-B-128	X		
GS-1910 Quality Assurance Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-129			

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TITLE	QUALIFICATION STANDARD	TS#;DATE; PAGE # IN SECT.IV-B	MINIM EDUC REQ	LIC or CERT REQ	MED REQ
GS-2001 General Supply Series	Adm & Mgmt	TS-17;June 1997 IV-B-130			
GS-2003 Supply Program management Series	Adm & Mgmt	TS-17;June 1997 IV-B-130			
GS-2005 Supply Clerical and Technician Series	Cler & Adm Sup	TS-17;June 1997 IV-B-131			
GS-2010 Inventory Management Series	Adm & Mgmt	TS-17;June 1997 IV-B-131			
GS-2101 Transportation Specialist Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-131			
GS-2102 Transportation Clerk and Assistant Series	Cler & Adm Sup	TS-17;June 1997 IV-B-131			
GS-2130 Traffic Management Series	Adm & Mgmt + IOR	TS-17;June 1997 IV-B-132			
GS-2131 Freight Rate Series	Cler & Adm Sup	TS-17;June 1997 IV-B-133			
GS-2151 Dispatching Series	Cler & Adm Sup	TS-17;June 1997 IV-B-133			



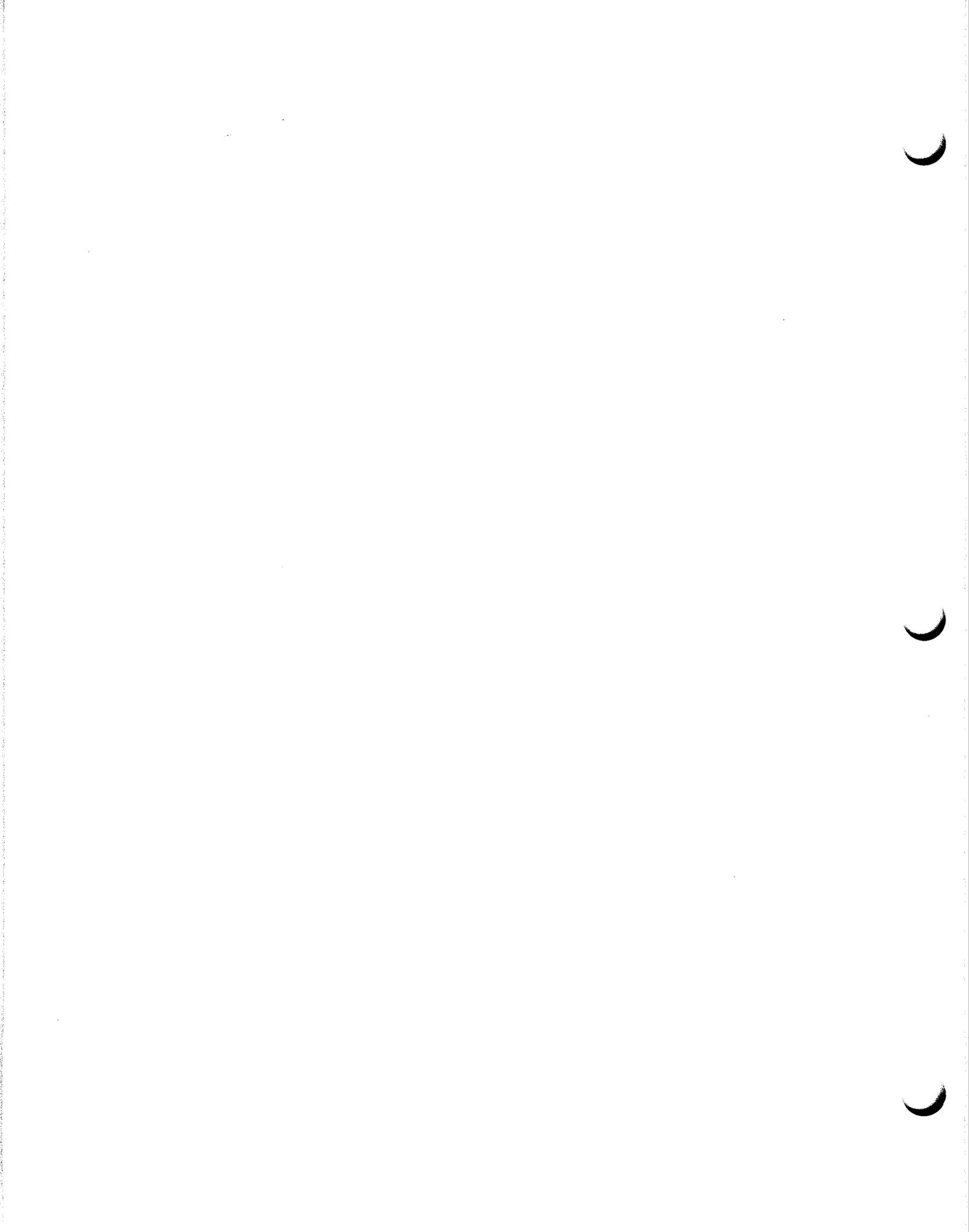
**INDIAN HEALTH SERVICE
EXCEPTED SERVICE QUALIFICATION STANDARDS
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SECTION IV. QUALIFICATIONS STANDARDS

This section of the Manual contains "Group Coverage Qualification Standards (IV-A) and "Individual Qualification Standards and Occupational Requirements in Series Order (IV-B)." Please note that an understanding of the material in the "General Policies and Instructions (section II of this Manual) is vital to the use of the qualification standards.

Section IV-A describes the minimum qualification requirements for occupations with common patterns of education and experience. Most occupations in IHS are covered by one of the group coverage (generic) qualification standards. For each group coverage standard that is associated with specific occupations, a list of the principal occupational series covered is included. Occupational lists are provided with the Group Coverage Qualification Standards for Clerical and Administrative Support Positions, Technical and Medical Support Positions, Administrative and Management Positions, Professional and Scientific Positions, and Student Trainee Positions. Only positions currently or potentially used within the IHS excepted service are listed. Occupational lists are not provided with the standards for Supervisory Positions, Policy Analysis and Administrative Analysis Positions, and Positions Involving Equal Employment Opportunity Collateral Assignments because these standards may be applied to a wide range of occupations.

Section IV-B consists of all General Schedule occupational series used in the IHS excepted service. This section indicates whether series are covered by group coverage standards, by individual occupational requirements used in conjunction with group coverage standards, or by individual standards. The material in this section is presented in occupational series number order.



QUALIFICATION STANDARDS OPERATING MANUAL

Group Coverage Qualification Standard for Clerical and Administrative Support Positions

OCCUPATIONAL COVERAGE

A list of the occupational series covered by this qualification standard is provided below. The occupational series marked with an asterisk have individual occupational requirements in section IV-B of this Manual.

GS-086	Security Clerical and Assistance	GS-592	Tax Examining
GS-119	Economics Assistance	GS-675	Medical Records Technician
GS-203	Personnel Clerical and Assistance	GS-679	Medical Clerk
GS-302	Messenger*	GS-962	Contact Representative
GS-204	Military Personnel and Clerical Assistance	GS-963	Legal Instruments Examining
GS-303	Miscellaneous Clerk and Assistant	GS-986	Legal Clerical and Assistance
GS-304	Information Receptionist	GS-990	General Claims Examining
GS-305	Mail and File	GS-991	Workers' Compensation Claims Examining
GS-309	Correspondence Clerk	GS-998	Claims Clerical
GS-312	Clerk-Stenographer and Reporter	GS-1001	General Arts and Information
GS-318	Secretary	GS-1046	Language Clerical*
GS-319	Closed Microphone Reporting	GS-1087	Editorial Assistance
GS-322	Clerk-Typist	GS-1101	General Business and Industry
GS-326	Office Automation Clerical and Assistance	GS-1105	Purchasing
GS-332	Computer Operation	GS-1106	Procurement Clerical and Technician
GS-335	Computer Clerk and Assistant	GS-1107	Property Disposal Clerical and Technician
GS-344	Management and Program Clerical and Assistance	GS-1152	Production Control
GS-350	Equipment Operator	GS-1411	Library Technician
GS-351	Printing Clerical	GS-1421	Archives Technician
GS-356	Data Transcriber	GS-1531	Statistical Assistant
GS-357	Coding	GS-1702	Education and Training Technician
GS-361	Equal Opportunity Assistance	GS-1802	Compliance Inspection and Support
GS-382	Telephone Operating	GS-2005	Supply Clerical and Technician
GS-390	Telecommunications Processing	GS-2091	Sales Store Clerical
GS-392	General Telecommunications	GS-2102	Transportation Clerk and Assistant
GS-394	Communications Clerical	GS-2131	Freight Rate
GS-503	Financial Clerical and Assistance	GS-2151	Dispatching
GS-525	Accounting Technician		
GS-530	Cash Processing		
GS-540	Voucher Examining		
GS-544	Civilian Pay		
GS-561	Budget Clerical and Assistance		

QUALIFICATION STANDARDS OPERATING MANUAL

**Group Coverage Qualification Standard
for Clerical and Administrative Support Positions**

This qualification standard covers positions in the General Schedule that involve the performance of one-grade interval clerical and administrative support work. It contains common patterns of creditable experience and education to be used in making qualifications determinations. Section IV-B of this Manual contains individual occupational requirements for a few occupations that are to be used in conjunction with this standard.

A list of the occupational series covered by this standard is provided on page IV-A-1. This standard may also be used for one-grade interval positions other than those listed if the education and experience pattern is determined to be appropriate.

EXPERIENCE AND EDUCATION REQUIREMENTS

The following table shows the amounts of education and/or experience required to qualify for positions covered by this standard.

GRADE/ POSITIONS	EXPERIENCE		OR EDUCATION
	GENERAL	SPECIALIZED	
GS-1 All positions	None	None	None
GS-2 All positions	3 months	None	High school graduation or equivalent
GS-3 Clerk-Steno <hr/> All other positions	6 months	None	High school graduation or equivalent <hr/> 1 year above high school
GS-4 All positions	1 year	None	2 years above high school
GS-5 Clerk-Steno <hr/> All other positions	2 years <hr/> None	None <hr/> 1 year equivalent to at least GS-4	4 years above high school (except Reporting Stenographer)
GS-6, and above All positions	None	1 year equivalent to at least next lower grade level	Generally, not applicable
Equivalent combinations of education and experience are qualifying for all grade levels and positions for which both education and experience are acceptable. Proficiency requirements are described on pages IV-A-5 and IV-A-6.			

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Group Coverage Qualification Standard for Clerical and Administrative Support Positions

Some of the occupational series covered by this standard include both one- and two-grade interval work. The qualification requirements described in this standard apply only to those positions that typically follow a one-grade interval pattern. While the levels of experience shown for most positions covered by this standard follow the grade level progression pattern outlined in the table, users of the standard should refer to F.3.(o) in the "General Policies and Instructions" (section II of this Manual) for guidance on crediting experience for positions with different lines of progression.

General Experience (All positions except Reporting Stenographer, Shorthand Reporter, and Closed Microphone Reporter)--Progressively responsible clerical, office, or other work that indicates ability to acquire the particular knowledge and skills needed to perform the duties of the position to be filled.

Specialized Experience (All positions except Reporting Stenographer, Shorthand Reporter, and Closed Microphone Reporter)--Experience that equipped the applicant with the particular KSAs to perform successfully the duties of the position, and that is typically in or related to the position to be filled. To be creditable, specialized experience must have been equivalent to at least the next lower grade level. Applicants who have the 1 year of appropriate specialized experience, as indicated in the table, are not required by this standard to have general experience, education above the high school level, or any additional specialized experience to meet the minimum qualification requirements.

Experience for Reporting Stenographer, Shorthand Reporter, and Closed Microphone Reporter--One year of experience equivalent to at least the next lower grade level using the skills and equipment appropriate to the position to be filled is required for all positions.

Following is a description of qualifying experience for these positions.

- Reporting Stenographer, GS-5: Experience as a clerk-stenographer, secretary, reporting stenographer, or in other positions that included application of stenography and typing skills as a significant part of the work.
- Reporting Stenographer, Shorthand Reporter, and Closed Microphone Reporter, GS-6: Experience as a reporting stenographer, hearing reporter, or in other positions in which the primary duty was to make and transcribe manual or machine-written shorthand records of hearings, interviews, or similar proceedings.
- Shorthand Reporter and Closed Microphone Reporter, GS-7 and above: Experience as a court reporter, or hearing reporter, or in other positions in which the primary duty was to make verbatim records of proceedings.

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Group Coverage Qualification Standard for Clerical and Administrative Support Positions

Education: High school graduation or the equivalent is creditable at the GS-2 level for the occupations listed, except Clerk-Stenographer, where it is creditable at the GS-3 entry level.

Successfully completed education above the high school level in any field for which high school graduation or the equivalent is the normal prerequisite is creditable at grades GS-3 through GS-5 for all positions except Reporting Stenographer, GS-5. This education must have been obtained in an accredited business, secretarial or technical school, junior college, college, or university. One year of full-time academic study is defined as 30 semester hours, 45 quarter hours, or the equivalent in a college or university, or at least 20 hours of classroom instruction per week for approximately 36 weeks in a business, secretarial, or technical school.

As a general rule, education is not creditable above GS-5 for most positions covered by this standard; however, graduate education may be credited in those few instances where the graduate education is directly related to the work of the position.

Intensive Short-Term Training--Completion of an intensive, specialized course of study of less than 1 year may fully meet the experience requirements for GS-3. Courses of this type normally require completion of up to 40 hours per week of instruction rather than the usual 20 hours per week, and are usually of at least 3 months duration. Such courses may have been obtained through a variety of programs such as those offered by business or technical schools, and through military training programs. To be creditable, such a course must have been designed specifically as career preparation for the work of the position being filled, and must have provided the applicant with the necessary KSAs to do the work.

Combining Education and Experience: Equivalent combinations of successfully completed post-high school education and experience may be used to meet total experience requirements at grades GS-5 and below, except for Reporting Stenographer, GS-5.

- For GS-3 and GS-4 level positions, determine the applicant's total qualifying experience as a percentage of the experience required for the grade level; then determine the applicant's education as a percentage of the education required for the grade level; then add the two percentages. The total percentage must equal at least 100 percent to qualify an applicant for that grade level.
- For GS-5 level positions (except Clerk-Stenographer, which does not require specialized experience), only education in excess of the first 60 semester hours (i.e., beyond the second year) is creditable toward meeting the specialized

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Group Coverage Qualification Standard for Clerical and Administrative Support Positions

experience requirement. One full academic year of study (30 semester hours)*beyond the second year* is equivalent to 6 months of specialized experience.

The following are examples of how education and experience may be combined. They are examples only, and are not all inclusive:

- The position to be filled is a Payroll Clerk, GS-4. An applicant has 8 months of qualifying experience and 20 semester hours of college. The applicant meets 67 percent of the required experience and 33 percent of the required education. The applicant meets 100 percent of the total requirements and is qualified for the position.
- The position to be filled is a Clerk-Typist, GS-4. The applicant has 4 months of qualifying experience and 1 year of business school. The applicant meets 33 percent of the required experience and 50 percent of the required education. The applicant meets 83 percent of the total requirements and is not qualified for the position.
- The position to be filled is a Clerk-Stenographer, GS-5. An applicant has 1 year of qualifying experience and 90 semester hours of college. The applicant meets 50 percent of the required experience and 75 percent of the required education. The applicant exceeds 100 percent of the total requirements and is qualified for the position.
- The position to be filled is an Editorial Assistant, GS-5. The applicant has 9 months of specialized experience and 75 semester hours of college (15 semester hours beyond the second year and the equivalent of 3 months of specialized experience). The applicant meets 75 percent of the required experience and 25 percent of the required education. The applicant meets 100 percent of the requirement for 1 year of specialized experience and is qualified for the position.

PROFICIENCY REQUIREMENTS

Clerk-Typist, Office Automation Clerk/Assistant, Clerk-Stenographer, Data Transcriber, and Positions with Parenthetical Titles of (Typing), (Office Automation), (Stenography), or (Data Transcription)

In addition to meeting experience or education requirements, applicants for these positions must show possession of the following skills, as appropriate. Applicants may meet these requirements by presenting a certificate of proficiency from a school or other organization

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authorized to issue such certificates or by self-certifying their proficiency. Performance test results and certificates of proficiency are acceptable for 3 years. Appropriate performance tests may be administered to verify proficiency skills of self-certified applicants.

- Clerk-Typist, GS-2/4; Office Automation Clerk/Assistant (any grade); (Typing) (any grade); and (Office Automation) (any grade):
 - 40 words per minute typing speed ¹
- Data Transcriber, GS-2/4; and (Data Transcription) (any grade):
 - skill in operating an alphanumeric data transcribing machine,
 - or 20 words per minute typing speed ¹ for GS-2 transcription duties,
 - or 25 words per minute typing speed ¹ for GS-3 and GS-4 transcription duties.
- Clerk -Stenographer, GS-3/4:
 - 40 words per minute typing speed ¹ *and*
 - 80 words per minute dictation speed ²
- Clerk-Stenographer, GS-3/4:
 - 40 words per minute typing speed ¹ *and*
 - 80 words per minute dictation speed ²
- Clerk-Stenographer, GS-5:
 - 40 words per minute typing speed ¹ *and*
 - 120 words per minute dictation speed ²

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- (Stenography) (any grade):

40 words per minute typing speed ¹ *and either*

80 words per minute dictation speed ² for GS-3 and GS-4 stenographic duties

or 120 words per minute dictation speed ² for GS-5 stenographic duties

NOTE: The level of proficiency for stenographic and data transcribing duties required by positions with parenthetical titles is based on the grade level of those duties and not necessarily on the overall grade of the position. For example, a position classified as Secretary (Stenography), GS-318-5, may require either 80 or 120 words per minute dictation speed depending upon the level of difficulty of the stenographic duties. A position classified as Payroll Clerk (Data Transcription), GS-544-4, may require either 20 or 25 words per minute typing speed depending upon the level of difficulty of the transcribing duties. Therefore, before filling positions of this type, first determine the grade level of the duties that require the additional skill, and then determine the skill level required.

¹ Words per minute are based on a 5 minute sample with three or fewer errors.

² The maximum number of errors allowed in a dictation sample equals 10 percent of the required dictation speed (80 words per minute or 120 words per minute) multiplied by the number of minutes in the sample.

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Reporting Stenographer, Shorthand Reporter, and Closed Microphone Reporter

In addition to meeting the experience requirements, applicants for these positions must show possession of the following skills with the equipment appropriate to the specific position.

- Reporting Stenographer, GS-5/6: 120 words per minute dictation speed³
- Shorthand Reporter and Closed Microphone Reporter, GS-6: 160 words per minute dictation speed ³
- Shorthand Reporter and Closed Microphone Reporter, GS-7 and above: 175 words per minute dictation speed ³

Applicants must also be able to produce accurate typewritten transcripts of recorded proceedings.

Applicants for appointment and inservice applicants for initial assignment to these three positions at all grade levels must demonstrate the specific skill and level of proficiency required by the position to be filled. Also, inservice applicants for promotion to positions that have a higher proficiency requirement than the position previously held must demonstrate the higher level of proficiency. Applicants may demonstrate that proficiency by either passing a dictation test at the required speed or presenting a certificate of proficiency showing speed and accuracy equivalent to those used in performance tests established for these positions. The certificate must show that the candidate demonstrated the required proficiency, i.e., dictation speed and accuracy, to a teacher of stenography, shorthand reporting, or closed microphone reporting, within the past year. Applicants for these positions may not self-certify dictation proficiency.

USING SELECTIVE FACTORS AND QUALITY RANKING FACTORS FOR POSITIONS COVERED BY THIS STANDARD

Selective factors must represent KSAs that are essential for successful job performance and cannot reasonably be acquired on the job during the period of orientation/training customary for the position being filled. (See section II.F.6 and 7). For example,

³ The maximum number of errors allowed in a dictation sample for these three positions equals 5 percent of the required dictation speed multiplied by the number of minutes in the sample.

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proficiency in the correct use of medical terminology may be needed immediately to perform the duties of a Medical Records Technician position to provide continuity in a medical records program. If that is the case, knowledge of medical terminology could be used as a selective factor in filling the position.

Also, there may be situations where additional KSAs are not essential for successful performance in the position being filled but are highly desirable for superior performance. These additional KSAs may not be appropriate for use as selective factors in determining whether applicants are basically qualified for the position but they may be used as quality ranking factors to distinguish between best qualified and minimally qualified applicants.

The following are examples of selective factors and/or quality ranking factors that may be appropriate for positions having direct contact with the AI/AN population served:

- Knowledge of the culture, customs, and traditions of the AI/AN population in the service area where the position is assigned.
- Ability to speak and understand the language of the AI/AN population in the service area where the position is assigned.

Selective factors and quality ranking factors must be directly related to the duties and responsibilities of the position being filled. All selective factors and quality ranking factors used must be stated on the vacancy announcement.

Refer to section II.F.6 and F.7 in the "General Policies and Instructions" for further guidance on the use of selective factors and quality ranking factors.

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Group Coverage Qualification Standard for Technical and Medical Support Positions

OCCUPATIONAL COVERAGE

A list of the occupational series covered by this qualification standard is provided below. The occupational series marked with an asterisk (*) have individual occupational requirements in section IV-B of this Manual.

GS-019 Safety Technician*	GS-648 Therapeutic Radiologic Technologist*
GS-102 Social Science Aid and Technician	GS-649 Medical Instrument Technician*
GS-119 Economics Assistant*	GS-651 Respiratory Therapist*
GS-181 Psychology Aid and Technician*	GS-661 Pharmacy Technician*
GS-186 Social Services Aid and Assistant*	GS-681 Dental Assistant*
GS-189 Recreation Aid and Assistant*	GS-683 Dental Laboratory Aid and Technician*
GS-404 Biological Science Technician*	GS-689 Environmental Health Technician*
GS-621 Nursing Assistant*	GS-802 Engineering Technician*
GS-622 Medical Supply Aide and Technician*	GS-809 Construction Control*
GS-625 Autopsy Assistant*	GS-817 Surveying Technician*
GS-636 Rehabilitation Therapy Assistant*	GS-818 Engineering Drafting*
GS-640 Health Aid and Technician*	GS-856 Electronics Technician*
GS-644 Medical Technologist	GS-895 Industrial Engineering Technician*
GS-645 Medical Technician*	GS-1311 Physical Science Technician*
GS-646 Pathology Technician*	GS-1521 Mathematics Technician
GS-647 Diagnostic Radiologic Technologist*	

QUALIFICATION STANDARDS OPERATING MANUAL

**Group Coverage Qualification Standard for
Technical and Medical Support Positions**

This qualification standard covers positions in the General Schedule that involve the performance of one-grade interval technical or medical support work. It contains common patterns of creditable experience and education to be used in making qualifications determinations. For most occupations, section IV-B of this Manual contains individual occupational requirements that are to be used in conjunction with this standard.

A list of the occupational series covered by this standard is provided on the previous page. This standard may also be used for one-grade interval positions other than those listed if the education and experience pattern is determined to be appropriate.

EXPERIENCE AND EDUCATION REQUIREMENTS

The following table shows the amounts of education and/or experience required to qualify for positions covered by this standard.

GRADE	EXPERIENCE		OR	EDUCATION
	GENERAL	SPECIALIZED		
GS-1	None	None		None
GS-2	3 months	None		High school graduation or equivalent
GS-3	6 months	None		1 year above high school with course(s) related to the occupation, if required
GS-4	6 months	6 months		2 years above high school with courses related to the occupation, if required
GS-5	None	1 year equivalent to at least GS-4		4-year course of study above high school leading to a bachelor's degree with courses related to the occupation, if required
GS-6 and above	None	1 year at least equivalent to the next lower grade level		See the NOTE under the Education section
Equivalent combinations of education and experience are qualifying for all grade levels and positions for which both education and experience are acceptable.				

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Group Coverage Qualification Standard for Technical and Medical Support Positions

While the levels of experience shown for most positions covered by this standard follow the grade level progression pattern outlined in the table, users of the standard should refer to F.3.(o) in the "General Policies and Instructions" (section II of this Manual) for guidance on crediting experience for positions with different lines of progression.

General Experience: (1) Any type of work that demonstrates the applicant's ability to perform the work of the position, or (2) experience that provided a familiarity with the subject matter or processes of the broad subject area of the occupation.

Specialized Experience: Experience that equipped the applicant with the particular KSAs to perform successfully the duties of the position, and that is typically in or related to the work of the position to be filled. To be creditable, specialized experience must have been equivalent to at least the next lower grade level. Applicants who have the 1 year of appropriate specialized experience, as indicated in the table, are not required by this standard to have general experience, education above the high school level, or any additional specialized experience to meet the minimum qualification requirements.

Education: High school graduation or the equivalent is qualifying for GS-2.

Successfully completed post-high school education is qualifying for grades GS-3 through GS-5. This education must have been obtained in an accredited business or technical school, junior college, college, or university for which high school graduation or the equivalent is the normal prerequisite. One year of full-time undergraduate study is defined as 30 semester hours, 45 quarter hours, or the equivalent in a college or university or at least 20 hours of classroom instruction per week for approximately 36 weeks in a business or technical school.

For some occupations covered by this standard, 6 semester hours of specific courses are included in the 1 year of education that meets the GS-3 requirements. The 6 semester hours allow for subjects that are common to a broad range of degree programs, e.g., subjects in the mathematical, physical, or biological sciences. This inclusion corresponds to the second part of the description of general experience, i.e., the subjects provide evidence of a familiarity with the subject matter or processes of the broad subject area of the occupation. At grades GS-4 and above, a portion of the education is usually directly related to the work of the position to be filled. Examples of related courses are provided in the individual occupational requirements where applicable. However, other courses may be required if they are considered to be more directly related to the position to be filled.

NOTE: Graduate education or an internship meets the specialized experience required above GS-5 only in those instances where it is directly related to the work of the position. One full year of graduate education meets the requirements for GS-7. Two full years of

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Group Coverage Qualification Standard for Technical and Medical Support Positions

graduate education or a master's degree meets the requirements for GS-9. One year of full-time graduate education is considered to be the number of credit hours that the school attended has determined to represent 1 year of full-time study. If that information cannot be obtained from the school, 18 semester hours should be considered as satisfying the 1 year of full-time study requirement. Part-time graduate education is creditable in accordance with its relationship to a year of full-time study at the school attended.

Training: Completion of appropriate training such as inservice training programs, training acquired while serving in the Armed Forces, and government-sponsored developmental training programs will be allowed credit on a month-for-month basis, generally through the GS-5 level. Such training meets general or specialized experience requirements depending upon its applicability.

Completion of an intensive, specialized course of study of less than 1 year may fully meet the experience requirements for the GS-3 level. Courses of this type normally require completion of up to 40 hours per week of instruction rather than the usual 20 hours per week, and are usually of *at least* 3 months duration. Such courses may have been obtained through a variety of programs such as those offered by technical schools and military training programs. To be creditable, such a course must have been designed specifically as career preparation for the work of the position being filled, and must have provided the applicant with the necessary KSAs to do the work.

Combining Experience and Education: Equivalent combinations of successfully completed post-high school education and experience are also qualifying. The combinations described below are those most typical for these positions, i.e., for grades GS-3 through GS-5. If education is used to meet specialized experience requirements, then such education must include courses directly related to the work of the position. (When crediting education, prorate the number of hours of related courses required as a proportion of the total education to be used.)

- For GS-3 level positions, determine the applicant's total qualifying experience as a percentage of the 6 months' experience required for GS-3; then determine the applicant's education as a percentage of the 1 year of education that meets the requirements for GS-3. Add the two percentages. The total percentage must equal at least 100 percent to qualify an applicant for the GS-3 level.
- For GS-4 level positions, determine the applicant's total qualifying experience as a percentage of the 1 year of experience required for GS-4; then determine the applicant's education as a percentage of the 2 years of education that meets the

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Group Coverage Qualification Standard for Technical and Medical Support Positions

requirements for GS-4. Add the two percentages. The total percentage must equal at least 100 percent to qualify an applicant for the GS-4 level.

- For GS-5 level positions, only education in excess of the first 60 semester hours of a course of study leading to a bachelor's degree is creditable toward meeting the specialized experience requirements. Two full academic years of study, or 60 semester hours, beyond the second year is equivalent to 1 year of specialized experience. Determine the applicant's total qualifying experience as a percentage of the year of specialized experience required at the GS-5 level. Then determine the applicant's education as a percentage of the education that meets the requirements for GS-5. Add the two percentages. The total percentage must equal at least 100 percent to qualify an applicant for GS-5.

The following are examples of how education and experience may be combined. They are examples only, and are not all-inclusive.

- The position to be filled is a Pharmacy Aid, GS-3. An applicant has 2 months of experience and 20 semester hours of college. The applicant meets 33 percent of the required experience and 67 percent of the required education. The applicant meets 100 percent of the total requirements and is qualified for the position.
- The position to be filled is an Industrial Engineering Technician, GS-4. An applicant has 5 months of general experience and 36 semester hours of college. The applicant meets 42 percent of the required experience and 60 percent of the required education. The applicant exceeds 100 percent of the total requirements and is qualified for the position. (This example assumes that education is being used to meet the specialized experience requirements, and that at least 7 of the 36 semester hours are in courses directly related to the work of the position.) Examples of such courses are provided in the individual occupational requirements for the Industrial Engineering Technician Series, GS-895, in section IV-B.
- The position to be filled is a Recreation Assistant, GS-5. An applicant has 8 months of GS-4 level specialized experience and 80 semester hours of college. The applicant meets 67 percent of the required experience and 33 percent of the required education (i.e., 20 semester hours in excess of the first 60 semester hours). The applicant meets 100 percent of the total requirements and is qualified for the position. At least 8 of the 20 semester hours must be directly related to the work of the position. Examples of such courses are provided in the individual occupational requirements for the Recreation Aid and Assistant Series, GS-189, in section IV-B.

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Group Coverage Qualification Standard for Technical and Medical Support Positions

USING SELECTIVE FACTORS QUALITY RANKING FACTORS FOR POSITIONS COVERED BY THIS STANDARD

Selective factors must represent KSAs that are essential for successful job performance and that cannot reasonably be acquired on the job during the period of orientation/training customary for the position being filled. For example, a requirement for knowledge of microbiological laboratory techniques may be needed immediately to perform the duties of a Biological Technician position in a disease research laboratory. If that is the case, such knowledge could be justified as a selective factor in filling the position.

Also, there may be situations where additional KSAs are not essential for successful performance in the position being filled but are highly desirable for superior performance. These additional KSAs may not be appropriate for use as selective factors in determining whether applicants are basically qualified for the position but they may be used as quality ranking factors to distinguish between best qualified and minimally qualified applicants.

The following are examples of either selective factors or quality ranking factors that *may be* appropriate for positions having direct contact with the AI/AN population served:

- Knowledge of the culture, customs, and traditions of the AI/AN population in the service area where the position is assigned.
- Ability to speak and understand the language of the AI/AN population in the service area where the position is assigned.

Selective factors and quality ranking factors must be directly related to the duties and responsibilities of the position being filled. All selective factors and quality ranking factors used must be stated on the vacancy announcement.

Refer to section II.F.6 and F.7 in the "General Policies and Instructions" for further guidance on the use of selective factors and quality ranking factors.

USING INDIVIDUAL OCCUPATIONAL REQUIREMENTS WITH THIS STANDARD

General experience requirements at the GS-2 and GS-3 levels are described in the group coverage standard so that the applicant pool at those "trainee" levels will be as generally inclusive as possible. Thus, examples of qualifying general experience are not included in the "Individual Occupational Requirements" for positions covered by this qualification standard.

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Group Coverage Qualification Standard for Technical and Medical Support Positions

Positions at GS-4 and above require specialized experience, education, or training related to the occupation. Examples of qualifying specialized experience are provided for those occupations where such information is currently available. Examples of qualifying post-high school education or training are also provided.

QUALIFICATION STANDARDS OPERATING MANUAL

Group Coverage Qualification Standard for Administrative and Management Positions

OCCUPATIONAL COVERAGE

A list of the occupational series covered by this qualification standard is provided below. The occupational series marked with an asterisk (*) have individual occupational requirements in section IV-B of this Manual. Refer to section V for information about occupations with test requirements.

GS-018	Safety and Occupational Health Management*	GS-1010	Exhibits Specialist*
GS-080	Security Administration	GS-1020	Illustrating*
GS-142	Manpower Development	GS-1035	Public Affairs
GS-188	Recreation Specialist*	GS-1040	Language Specialist*
GS-201	Personnel Management	GS-1051	Music Specialist*
GS-205	Military Personnel Management	GS-1054	Theater Specialist*
GS-212	Personnel Staffing	GS-1056	Art Specialist*
GS-221	Position Classification	GS-1071	Audiovisual Production*
GS-222	Occupational Analysis	GS-1082	Writing and Editing
GS-223	Salary and Wage Administration	GS-1083	Technical Writing and Editing*
GS-230	Employee Relations	GS-1084	Visual Information*
GS-233	Labor Relations	GS-1101	General Business and Industry*
GS-235	Employee Development	GS-1102	Contracting*
GS-260	Equal Employment Opportunity	GS-1103	Industrial Property Management*
GS-301	Miscellaneous Administration and Program	GS-1104	Property Disposal
GS-334	Computer Specialist*	GS-1160	Financial Analysis*
GS-340	Program Management	GS-1163	Insurance Examining
GS-341	Administrative Officer	GS-1165	Loan Specialist
GS-343	Management and Program Analysis	GS-1170	Realty
GS-360	Equal Opportunity Compliance	GS-1171	Appraising
GS-391	Telecommunications*	GS-1173	Housing Management
GS-501	Financial Administration and Program	GS-1176	Building Management
GS-505	Financial Management*	GS-1421	Archives Technician
GS-560	Budget Analysis	GS-1640	Facility Management*
GS-570	Financial Institution Examining*	GS-1654	Printing Management*
GS-669	Medical Records Administration*	GS-1670	Equipment Specialist*
GS-670	Health System Administration*	GS-1702	Education and Training Technician
GS-671	Health System Specialist*	GS-1712	Training Instruction*
GS-673	Hospital Housekeeping Management*	GS-1715	Vocational Rehabilitation
GS-685	Public Health Program Specialist*	GS-1801	General Inspection, Investigation, and Compliance*
GS-828	Construction Analyst*	GS-1810	General Investigating
GS-950	Paralegal Specialist	GS-1910	Quality Assurance*
GS-962	Contact Representative	GS-2001	General Supply
GS-991	Workers' Compensation Claims Examining	GS-2003	Supply Program Management
GS-1001	General Arts and Information*	GS-2010	Inventory Management
		GS-2050	Supply Cataloging
		GS-2101	Transportation Specialist*
		GS-2130	Traffic Management*

QUALIFICATION STANDARDS OPERATING MANUAL

Group Coverage Qualification Standard for Administrative and Management Positions

This qualification standard covers positions in the General Schedule that involve the performance of two-grade interval administrative and management work. It contains common patterns of creditable education and experience to be used in making qualifications determinations. Section IV-B of this Manual contains individual occupational requirements for some occupations that are to be used in conjunction with this standard.

A list of the occupational series covered by this standard is provided on the previous page. This standard may also be used for two-grade interval positions other than those listed if the education and experience pattern is determined to be appropriate.

EDUCATION AND EXPERIENCE REQUIREMENTS

The following table shows the amounts of education and/or experience required to qualify for positions covered by this standard.

GRADE	EDUCATION	OR EXPERIENCE	
		GENERAL	SPECIALIZED
GS-5	4 year course of study leading to a bachelor's degree	3 years, 1 of which was equivalent to at least GS-4	None
GS-7	1 full year of graduate level education or superior academic achievement	None	1 year equivalent to at least GS-5
GS-9	2 full years of progressively higher level graduate education or master's or equivalent graduate degree (such as an LL.B. or J.D.)	None	1 year equivalent to at least GS-7
GS-11	3 full years of progressively higher level graduate education or equivalent doctoral degree	None	1 year equivalent to GS-9
GS-12	None	None	1 year equivalent to at least next lower grade level

Equivalent combinations of education and experience are qualifying for all grade levels for which both education and experience are acceptable.

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Some of the occupational series covered by this standard include both one- and two-grade interval work. The qualification requirements described in this standard apply only to those positions that typically follow a two-grade interval pattern. While the levels of experience shown for most positions covered by this standard follow the grade level progression pattern outlined in the table, users of the standard should refer to section II.F.3.(p) in the "General Policies and Instructions" (section II of this Manual) for guidance on crediting experience for positions with different lines of progression.

Undergraduate Education: Successful completion of a full 4-year course of study in *any field* leading to a bachelor's degree, in an accredited college or university, meets the GS-5 level requirements for many positions covered by this standard. Others have individual occupational requirements in section IV-B that specify that applicants must, in general, (1) have specific course work that meets the requirements for a major in a *particular field(s)*, or (2) have at least 24 semester hours of course work in the field(s) identified. Course work in fields closely related to those specified may be accepted if it clearly provides applicants with the background of knowledge and skills necessary for successful job performance. One year of full-time undergraduate study is defined as 30 semester hours or 45 quarter hours, and is equivalent to 9 months of general experience.

Superior Academic Achievement: The S.A.A. provision is applicable to all occupations covered by this standard. See the "General Policies and Instructions" (section II of this Manual) for specific guidance on applying the S.A.A. provision.

Graduate Education: Education at the graduate level in an accredited college or university in the amounts shown in the table meets the requirements for positions at GS-7 through GS-11. Such education must demonstrate the KSAs necessary to do the work.

One year of full-time graduate education is considered to be the number of credit hours that the school attended has determined to represent 1 year of full-time study. If that information cannot be obtained from the school, 18 semester hours should be considered as satisfying the 1 year of full-time study requirement.

Part-time graduate education is creditable in accordance with its relationship to a year of full-time study at the school attended.

For certain positions covered by this standard, the work may be recognized as sufficiently technical or specialized that graduate study alone may not provide the knowledge and skills needed to perform the work. In such cases, selective factors may be used to screen out applicants without actual work experience.

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General Experience: For positions for which individual occupational requirements do not specify otherwise, general experience is 3 years of progressively responsible experience, 1 year of which was equivalent to at least GS-4, that demonstrates the ability to:

1. Analyze problems to identify significant factors, gather pertinent data, and recognize solutions;
2. Plan and organize work; *and*
3. Communicate effectively orally and in writing.

Such experience may have been gained in administrative, professional, technical, investigative, or other responsible work. Experience in substantive and relevant secretarial, clerical, or other responsible work may be qualifying as long as it provided evidence of the KSAs necessary to perform the duties of the position to be filled. Experience of a general clerical nature (typing, filing, routine procedural processing, maintaining records, or other nonspecialized tasks) is not creditable. Trades or crafts experience appropriate to the position to be filled may be creditable for some positions.

For some occupations or positions, applicants must have had work experience that demonstrated KSA's in addition to those identified above. Positions with more specific general experience requirements than those described here are shown in the appropriate individual occupational requirements.

Specialized Experience: Experience that equipped the applicant with the particular KSAs to perform successfully the duties of the position, and that is typically in or related to the work of the position to be filled. To be creditable, specialized experience must have been equivalent to at least the next lower grade level in the normal line of progression for the occupation in the organization. Applicants who have the 1 year of appropriate specialized experience, as indicated in the table, are not required by this standard to have general experience, education above the high school level, or any additional specialized experience to meet the minimum qualification requirements.

Combining Education and Experience: Combinations of successfully completed post-high school education and experience may be used to meet total qualification requirements for the grade levels specified in the table, and may be computed by first determining the applicant's total qualifying experience as a percentage of the experience required for the grade level; then determining the applicant's education as a percentage of the education required for the grade level; and then adding the two percentages. The total percentages must equal at least 100 percent to qualify an applicant for that grade level. Only graduate education in excess of the amount required for the next lower grade level may be used to

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qualify applicants for positions at grades GS-9 and GS-11. (When crediting education that requires specific course work, prorate the number of hours of related courses required as a proportion of the total education to be used.)

The following are examples of how education and experience may be combined. They are examples only, and are not all-inclusive.

- The position to be filled is a Quality Assurance Specialist, GS-1910-5. An applicant has 2 years of general experience and 45 semester hours of college that included 9 semester hours in related course work as described in the individual occupational requirements in section IV-B. The applicant meets 67 percent of the required experience and 38 percent of the required education. Therefore, the applicant exceeds 100 percent of the total requirement and is qualified for the position.
- The position to be filled is a Management Analyst, GS-343-9. An applicant has 6 months of specialized experience equivalent to GS-7 and 1 year of graduate level education. The applicant meets 50 percent of the required experience but none of the required education, since he or she does not have any graduate study beyond that which is required for GS-7. Therefore, the applicant meets only 50 percent of the total requirement and is not qualified for the position. (The applicant's first year of graduate study is not qualifying for GS-9.)
- The position to be filled is a Music Specialist, GS-1051-11. An applicant has 9 months of specialized experience equivalent to GS-9 and 2 1/2 years of creditable graduate level education in music. The applicant meets 75 percent of the required experience and 50 percent of the required education, i.e., the applicant has 1/2 year of graduate study beyond that required for GS-9. Therefore, the applicant exceeds the total requirement and is qualified for the position. (The applicant's first 2 years of graduate study are not qualifying for GS-11.)

USING SELECTIVE FACTORS AND QUALITY RANKING FACTORS FOR POSITIONS COVERED BY THIS STANDARD

Selective factors must represent KSAs that are essential for successful job performance and cannot reasonably be acquired on the job during the period of orientation/training customary for the position being filled. For example, while the individual occupational requirements for Recreation Specialist provide for applicants to meet minimum qualifications on the basis of education or experience in any one of a number of recreational fields, a requirement for knowledge of therapeutic recreation may be needed to perform the duties of a position providing recreation services to persons with physical

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disabilities. If that is the case, such knowledge could be justified as a selective factor in filling the position.

Also, there may be situations where additional KSAs are not essential for successful performance in the position being filled but are highly desirable for superior performance. These additional KSAs may not be appropriate for use as selective factors in determining whether applicants are basically qualified for the position but they may be used as quality ranking factors to distinguish between best qualified and minimally qualified applicants.

The following are examples of selective factors and/or quality ranking factors that *may be* appropriate for positions having direct contact with the AI/AN population served.

- Knowledge of the culture, customs, and traditions of the AI/AN population in the service area where the position is assigned.
- Ability to speak and understand the language of the AI/AN population in the service area where the position is assigned.

Selective factors and quality ranking factors must be directly related to the duties and responsibilities of the position being filled. All selective factors and quality ranking factors used must be stated on the vacancy announcement.

Refer to section II.F.6 and F.7 in the "General Policies and Instructions" for further guidance on the use of selective factors and quality ranking factors.

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OCCUPATIONAL COVERAGE

A list of the occupational series covered by this qualification standard is provided below. All occupational series covered by this standard have individual occupational requirements in section IV-B of this Manual.

GS-101 Social Science	GS-665 Speech Pathology and Audiology
GS-110 Economics	GS-690 Industrial Hygiene
GS-140 Manpower Research and Analysis	GS-808 Architecture
GS-180 Psychology	GS-1015 Museum Curator
GS-184 Sociology	GS-1301 General Physical Science
GS-185 Social Work	GS-1306 Health Physics
GS-401 General Biological Science	GS-1320 Chemistry
GS-403 Microbiology	GS-1515 Operations Research
GS-405 Pharmacology	GS-1520 Mathematics
GS-413 Physiology	GS-1529 Mathematical Statistician
GS-415 Toxicology	GS-1530 Statistician
GS-510 Accounting	GS-1550 Computer Science
GS-511 Auditing	GS-1701 General Education and Training
GS-601 General Health Science	GS-1710 Education and Vocational Training
GS-630 Dietitian and Nutritionist	GS-1720 Education Program
GS-631 Occupational Therapist	GS-1725 Public Health Educator
GS-633 Physical Therapist	GS-1730 Education Research
GS-635 Corrective Therapist	GS-1740 Education Services
GS-637 Manual Arts Therapist	GS-1750 Instructional Systems

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This qualification standard covers positions that involve the performance of two-grade interval professional and scientific work. The specific requirements for entry into each occupation covered by this standard are described in individual occupational requirements in section IV-B of this Manual. Section II of this Manual (General Policies and Instructions) provides guidance on interpreting minimum educational requirements.

A list of the occupational series covered by this standard is provided on the previous page.

BASIC REQUIREMENTS FOR ALL GRADES

Applicants who meet the basic requirements described in the individual occupational requirements are fully qualified for the specified entry grade (generally grade GS-5). Applicants who wish to qualify for positions at higher grade levels (generally grade GS-7 and above) must meet the requirements shown in the table on the following page, in addition to meeting the basic requirements.

The individual occupational requirements typically provide at least two methods for applicants to meet the basic requirements of the occupations covered by this standard:

- A. Successful completion of a full 4-year course of study in an accredited college or university leading to a bachelor's or higher degree that included a major field of study or specific course requirements generally as stated in paragraph A in the individual occupational requirements.

Where specific course requirements are not indicated in paragraph A, the number of semester hours required to constitute a major field of study is the amount specified by the college or university attended. If this number cannot be obtained, 24 semester hours will be considered as equivalent to a major field of study. The nature and quality of this required course work must have been such that it would serve as a prerequisite for more advanced study in the field or subject-matter area. Related course work generally refers to courses that may be accepted as part of the program major.

OR

- B. Appropriate combination of education and experience that is typically specified in paragraph B of the individual occupational requirements. The "paragraph B" method generally requires that an applicant possess a core of educational credit, such as described in paragraph A above, plus additional education and/or experience. The method of determining the number of semester hours required to constitute a major field of study is the same as described in paragraph A.

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The quality of the combined education and experience must be sufficient to demonstrate that the applicant possesses the KSAs required to perform work in the occupation, and is comparable to that normally acquired through the successful completion of a full 4-year course of study with a major in the appropriate field. In addition to courses in the major and related fields, a typical college degree would have included courses that involved analysis, writing, critical thinking, research, etc. These courses would have provided an applicant with skills and abilities sufficient to perform progressively more responsible work in the occupation. Therefore, creditable experience should have demonstrated similarly appropriate skills or abilities needed to perform the work of the occupation.

The individual occupational requirements for some series make no provision for substituting experience for education. Therefore, they do *not* include paragraph B provisions.

For a small number of occupations or positions covered by this standard, applicants may possess certain kinds of experience *in lieu* of education. In such cases, applicants may meet minimum qualification requirements through experience equivalent to a 4-year degree. These situations are generally described in paragraph C of the individual occupational requirements.

Applicants whose experience is used to meet the basic requirements through a paragraph B or C provision may qualify for grades above the entry level if that experience includes 1 year of specialized experience. In such cases, the specialized experience would have to be evaluated to determine if it is at the appropriate grade level in the normal line of progression.

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**ADDITIONAL EXPERIENCE AND EDUCATION REQUIREMENTS FOR GS-7
AND ABOVE**

In addition to meeting the basic entry qualification requirements, applicants must have specialized experience and/or directly related education in the amounts shown in the table below.

GRADE	Education	OR Specialized Experience
GS-7	1 full year of graduate level education or superior academic achievement	1 year equivalent to at least GS-5
GS-9	2 full years of progressively higher level graduate education or master's or equivalent graduate degree	1 year equivalent to at least GS-7
GS-11	3 full years of progressively higher level graduate education or Ph.D. or equivalent doctoral degree	1 year equivalent to at least GS-9
GS-12 & above		1 year equivalent to at least next lower grade level
GS-11 research positions	Master's or equivalent graduate degree	1 year equivalent to at least GS-9
GS-12 research positions		1 year equivalent to at least GS-11
GS-13 & above research positions		1 year equivalent to at least next lower grade level
NOTE: Education and experience may be combined for all grade levels for which both education and experience are acceptable.		

While the levels of experience shown for most positions covered by this standard follow the grade level progression pattern outlined in the table, users of the standard should refer to section II of this Manual (General Policies and Instructions) for guidance on crediting experience for positions with different lines of progression.

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Combining Education and Experience: When combining education with experience, first determine the applicant's total qualifying education as a percentage of the education required for the grade level; then determine the applicant's experience as a percentage of the experience required for the grade level; finally, add the two percentages. The total percentage must equal at least 100 percent to qualify an applicant for that grade level. For example, an applicant for a GS-184, Sociology, position has successfully completed 60 undergraduate semester hours, including 24 semester hours in sociology, and, in addition, has 2 full-time years of appropriate experience that demonstrates that the applicant possesses the necessary analytical and communication skills. The applicant would qualify for GS-5, since the 60 semester hours (the equivalent of 2 years of undergraduate education, or 50 percent of the total requirement) were supplemented by 2 additional years of appropriate experience that provided the remaining 50 percent of the total required education and experience.

Specialized Experience: Experience that equipped the applicant with the particular KSAs to perform successfully the duties of the position, and that is typically in or related to the work of the position to be filled. To be creditable, specialized experience must have been equivalent to at least the next lower grade level in the normal line of progression for the occupation in the organization.

Superior Academic Achievement: The S.S.A. provision is applicable to all occupations covered by this standard. See section II of this Manual (General Policies and Instructions), for specific guidance on applying the S.S.A. provision.

Graduate Education: Completion of graduate level education in the amounts shown in the table, in addition to meeting the basic requirements, is qualifying for positions at grades GS-7 through GS-11, and GS-12 research positions if it provided the KSAs necessary to do the work. One year of full-time graduate education is considered to be the number of credit hours that the school attended has determined to represent 1 year of full-time study. If that number cannot be obtained from the school, 18 semester hours should be considered an academic year of graduate study. Part-time graduate education is creditable in accordance with its relationship to a year of full-time study at the school attended.

Research Positions: Positions that primarily involve scientific inquiry or investigation, or research-type exploratory development of a creative or advanced scientific nature, where the knowledge required to perform the work successfully is typically and primarily acquired through graduate study (master's or equivalent degree for GS-11, Ph.D. or equivalent for GS-12). The work is such that the academic preparation will equip the applicant to

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perform the full range of professional work of the position after a short orientation period.

1. Qualification on the basis of education--Applicants for such research positions can be considered qualified for GS-11 if they possess an appropriate master's or equivalent graduate degree, and qualified for GS-12 if they possess a Ph.D. or equivalent doctoral degree.
2. Qualification on the basis of experience--Applicants who furnish positive evidence that they have performed highly creative or outstanding research that has led or can lead to major advances in a specific area of research, to a major advance in the discipline or field of science involved, or to major advances in science in general, can be rated under this provision for highly demanding research positions requiring similar abilities. Under these circumstances, applicants can be rated eligible for the next higher grade level above that for which they would normally be rated, provided they have not been rated eligible at this higher grade on the basis of meeting the graduate study requirements described in paragraph 1 above. To receive this rating, the work must have been creative in the sense that it developed a basic principle, product, concept, method, approach, or technique, or provided a body of basic information that opened the way for a major advance in the discipline or field of science involved, or to advances in science in general, by providing a method of solving other problems, opening areas of research, or providing the means of exploiting the application of science in a major area. Applicants cannot receive an "extra" grade for education, and an additional "extra" grade for appropriate experience.

Combination of Graduate Education and Professional Experience: Combinations of successfully completed graduate level education and specialized experience may be used to meet total experience requirements. Only graduate level education in excess of the amount required for the next lower grade level may be combined with experience. For example, an applicant with 6 months of appropriate experience equivalent to GS-7 (50 percent of the experience requirement for GS-9) and 27 semester hours of appropriate graduate education (50 percent of the education requirement for GS-9, in excess of that required for GS-7) would be qualified for a GS-9 position (assuming that there is no evidence that the college or university attended requires more than 18 semester hours as equivalent to a year of graduate study).

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USING SELECTIVE FACTORS AND QUALITY RANKING FACTORS FOR POSITIONS COVERED BY THIS STANDARD

Selective factors must represent KSAs that are job related, essential for the successful performance of the position, and cannot be reasonably acquired on the job during the period of training/orientation customary for the position being filled. There are a variety of situations that may warrant limiting consideration to applicants who possess selective factors required to perform the work of positions covered by this standard. For example, positions concerned with scientific research and development activities may require specific kinds of training appropriate to the work, or may require specific educational courses or combinations of courses (where the individual occupational requirements permit applicants to qualify based on several combinations of educational course work) to meet other specialized requirements. In some cases, consideration may be limited only to those applicants who possess an appropriate license, registration, or certification, if possession of such is determined to be necessary for carrying out the responsibilities of a position and/or is required by statute.

Also, there may be situations where additional KSAs are not essential for successful performance in the position being filled but are highly desirable for superior performance. These additional KSAs may not be appropriate for use as selective factors in determining whether applicants are basically qualified for the position but they may be used as quality ranking factors to distinguish between best qualified and minimally qualified applicants.

The following are examples of selective factors and/or quality ranking factors that *may be* appropriate for positions having direct contact with the AI/AN population served.

- Knowledge of the culture, customs, and traditions of the AI/AN population in the service area where the position is assigned.
- Ability to speak and understand the language of the AI/AN population in the service area where the position is assigned.

Selective factors and quality ranking factors must be directly related to the duties and responsibilities of the position being filled. All selective factors and quality ranking factors used must be stated on the vacancy announcement.

Refer to section II.F.6 and F.7 in the "General Policies and Instructions" for further guidance on the use of selective factors and quality ranking factors.

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Group Coverage Qualification Standard for IHS Excepted Service Student Trainee Positions

OCCUPATIONAL COVERAGE

A list of the occupational series covered by this qualification standard is provided below.

GS-099	Safety Technician Student Trainee	GS-1199	Business and Industry Student Trainee
GS-199	Social Science Student Trainee	GS-1299	Copyright and Patent Student Trainee
GS-299	Personnel Management Student Trainee	GS-1399	Physical Science Student Trainee
GS-399	Administration and Office Support Student Trainee	GS-1499	Library and Archives Student Trainee
GS-499	Biological Science Student Trainee	GS-1599	Mathematics and Statistics Student Trainee
GS-599	Financial Management Student Trainee	GS-1699	Equipment and Facilities Management Student Trainee
GS-699	Medical and Health Student Trainee	GS-1799	Education Student Trainee
GS-899	Engineering and Architecture Student Trainee	GS-1899	Investigation Student Trainee
GS-999	Legal Occupations Student Trainee	GS-1999	Quality Inspection Student Trainee
GS-1099	Information and Arts Student Trainee	GS-2099	Supply Student Trainee
		GS-2199	Transportation Student Trainee

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Group Coverage Qualification Standard for IHS Excepted Service Student Trainee Positions

This standard describes the qualification requirements for student trainee positions made under career-conditional or career appointments in the IHS excepted service. This standard is not applicable to students who are temporarily employed during summer vacations and who have not been appointed to a career-related student trainee program IHS excepted service as described above.

A student may be appointed to any position that leads to qualification in a two-grade interval professional, administrative, or technical occupational series and that provides an opportunity for the student's growth and development toward the target position.

A list of the occupational series covered by this standard is provided on the previous page.

REQUIREMENTS FOR INITIAL APPOINTMENT

Student trainees qualify as described below.

GRADE	LEVEL OF EDUCATION
GS-2	High school diploma or equivalent
GS-3	Completion of 1 academic year of post-high school study
GS-4	Completion of 2 academic years of post-high school study or associate's degree

The required education must lead to a bachelor's degree with specialization in or directly related to the field in which the student trainees will receive training on the job. The degree of specialization in this field must satisfy on graduation, the specific educational requirements in the qualification standard for the corresponding two-grade interval positions.

PROMOTION REQUIREMENTS

Student trainees may be promoted to higher-graded trainee positions based on completion of portions of the education and student trainee work experience.

To GS-3: Completion of one full semester or the equivalent of post-high school study and one period of student trainee work experience.

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To GS-4: (a) Completion of 1 academic year of study and two periods of student trainee work experience; or (b) completion of 1 1/2 academic years of study and one period of student trainee work experience.

Upon completion of all the requirements for a bachelor's degree in an appropriate field, student trainees may be reassigned or promoted in the appropriate target series to GS-5 or GS-7 if they meet the qualification requirements of the target occupation, including minimum educational requirements, if any.

EXPLANATION OF TERMS

An academic year of undergraduate education is defined as 30 semester hours, 45 quarter hours, or the equivalent in an accredited college or university.

For purposes of this standard, a period of student trainee work experience is the equivalent of 2 months (320 hours) of full-time work experience.

QUALIFICATION STANDARDS OPERATING MANUAL

Qualification Standard for Supervisory Positions

This qualification standard prescribes minimum requirements for supervisory positions at grades GS-15 and below and provides guidance for evaluating the qualifications of candidates for such positions.

Many supervisory positions have specific subject-matter knowledge and skill requirements that candidates must also meet. Normally, such subject-matter requirements are contained in the qualification standard appropriate to the position to be filled.

Supervisory positions may be staffed with persons who have not had specific supervisory experience, provided they have the essential supervisory or managerial aptitudes. For example, to meet future staffing needs for supervisory positions, some organizations may identify a number of candidates with supervisory potential and provide appropriate training for them. Such training is encouraged either before or at the earliest possible time after individuals are selected to fill supervisory positions. The satisfactory completion of supervisory training is to be given appropriate weight in evaluating the overall supervisory or managerial abilities of candidates for positions covered by this standard.

SUPERVISORY OR MANAGERIAL ABILITIES

Candidates must have demonstrated, in their work experience or training, that they possess, or have the potential to develop, the qualities of successful supervision, as listed under the appropriate category below. The qualities listed for first level supervisory positions and for positions at second and higher levels are not mutually exclusive. For example, some first level supervisory positions may also require certain of the abilities described for second and higher level supervisors, or the potential to develop these abilities.

Decisions as to the appropriate minimum supervisory qualities should be based on actual job requirements.

For first level supervisory positions, ability to:

- Assign to and review work of subordinates, train and work effectively with subordinates from a variety of backgrounds and with different levels/areas of training.
- Accomplish the quality and quantity of work expected within set limits of cost and time.
- Plan own work and carry out assignments effectively.

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- Communicate with others effectively both orally and in writing in working out solutions to problems or questions relating to the work.
- Understand and further management goals as these affect day-to-day work operations.
- Develop improvements in or design new work methods and procedures.

For supervisory positions at second and higher levels:

In addition to the abilities required for first level supervisory positions, candidates for supervisory positions at second and higher levels must possess, or have the potential to develop, the ability to:

- Deal effectively with individuals or groups representing widely divergent backgrounds, interests, and points of view.
- Plan and adjust work operations to meet changing or emergency program or production requirements within available resources and with minimum sacrifice of quantity or quality of work.
- Establish program objectives or performance goals and assess progress toward their achievement.
- Coordinate and integrate the work activities and resources of several organizational segments or of several different projects.
- Analyze organizational and operational problems and develop timely and economical solutions.
- Represent the activity both within and outside the organization or agency to gain support for the agency's program goals.

PERSONAL ATTRIBUTES

The attributes listed below are important to success in supervisory or managerial positions at all supervisory levels. Accordingly, candidates for all supervisory positions must demonstrate all of the following personal qualities:

- Objectivity and fairness in judging people on their ability, and situations on the facts and circumstances;

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- Capacity to adjust to change, work pressures, or difficult situations without undue stress;
- Willingness to consider new ideas or divergent points of view; and
- Capacity to "see the job through."

The skills, abilities, and personal attributes described above may have been demonstrated in many types of either supervisory or nonsupervisory work assignments. The following examples show the kinds of assignments in which candidates may have acquired or demonstrated some of the skills and abilities identified earlier as necessary for supervisory positions.

For first level supervisors, assignments:

- That involved providing guidance and training to new employees.
- As a "project or team leader" that involved coordinating and integrating the work of others into a completed work product.
- That required the candidate to work closely with others to resolve problems, coordinate activities, or gain acceptance of a product or procedure.
- As a "troubleshooter" or source of advice to others regarding the work of the unit or organization.
- That involved devising new work methods and procedures or improvements in existing work practices, and getting the cooperation of employees in applying the new methods and practices.

For second and higher level supervisors, assignments:

- That required the candidate to devise ways to accommodate work operations to new and changing programs or requirements such as studies of work practices and procedures, staffing and budget requirements, and similar matters.
- That included extensive work with other Federal organizational units, or with State, local, or private activities, and that required the candidate to represent and explain program or project goals, or to coordinate and complete projects.

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- That involved one or more of the following complications: (1) controversial issues, i.e., disagreements on program requirements, policy positions, or operating procedures; (2) strong public interest; or (3) last minute changes requiring extensive coordination.
- To positions, task forces, planning, or special study groups that involved substantive work in (1) planning for new programs; (2) reviewing program operations to develop or improve methods, procedures, or controls; or (3) bringing about major changes in program operations and procedures when such assignments have required exploring the management, organizational, and program issues involved, and appraising alternative courses of action.

TECHNICAL REQUIREMENTS

Where the nature of the position to be filled warrants it, the technical requirements should be interpreted broadly. For example, if the position involves supervision of more than one kind of work, and no one kind clearly predominates, candidates may meet the minimum technical requirements if their backgrounds clearly show that they possess the KSAs needed in the occupation to which the position is classified, or in two or more of the kinds of work supervised.

For many positions, supervisory or program management skills are more significant to success than technical expertise in a particular subject-matter field. In such situations, undue emphasis should not be placed on technical skills. The total background of the candidate should demonstrate strong affirmative evidence that he or she:

1. Has the necessary level of supervisory or managerial skills, abilities, and attributes to perform the work successfully; and
2. Possesses the necessary level of professional or technical competence for the supervisory position being filled.

SUGGESTED METHOD FOR ANALYZING JOB REQUIREMENTS AND EVALUATING CANDIDATES

The guidance that follows provides a method for determining job requirements and assessing candidates' potential for supervisory positions. It also references an optional form that may be used for recording judgments about the job and the candidate. It is one way of deciding if a candidate has the potential to perform in a supervisory position. It is designed for use in any kind of personnel action (e.g., merit promotion, lateral reassignment, appointment from register), and can be used in filling any type of supervisory or managerial position at any grade level.

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It is not necessary to use this method or the optional form referenced here. Any part of these materials may be modified and adapted as necessary, provided that the modified method results in an identification of job requirements and an appraisal of candidates that is equivalent in scope and thoroughness to that which would be achieved through the use of the following method.

DETERMINING JOB REQUIREMENTS

The procedure outlined for determining the requirements of supervisory positions is designed to assure that the elements essential to success are given appropriate weight in the evaluation of candidates. These determinations need not be made on an individual position basis. For those supervisory positions that are substantially alike, decisions regarding job requirements can be applied to all like positions. Further, these requirements, once established, need not be revised until the basic characteristics of the position change.

All supervisory positions share some common requirements, such as the ability to get work done through others. However, the particular KSAs essential to supervisory success vary in kind and in importance from one supervisory position to another. These variations reflect differences in agency programs and operations, such as differences in (1) the kind of work operations supervised, (2) the place of the position in the management hierarchy, and (3) the goals and objectives of higher management.

1. The kind of work operations supervised or programs managed

Many supervisory positions require specialized subject-matter knowledge and experience. The depth and variety of this knowledge must be established to determine the degree to which the knowledge is essential, and the relative weight that should be given to this knowledge requirement in the overall appraisal of candidates.

2. The role and level of the position in the managerial hierarchy

The role of the position in the managerial hierarchy may be a clue to the relative importance of job requirements. All supervisory positions demand considerable skill in interpersonal relationships in guiding and controlling day-to-day work operations, and dealing with employees supervised. However, for supervisory positions at the higher levels, such demands as the ability to translate management goals and objectives into well-coordinated and controlled work operations, or the ability to establish and monitor production or performance priorities may assume additional importance.

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Qualification Standard for Supervisory Positions

- 3. The goals and objectives of higher management, as they relate to the activities to be supervised*

Management's expectations play an important part in determining the supervisor's role in the total work effort of the organization. These expectations are reflected in the amount and kind of authority and responsibility delegated to the position which, in turn, affect the skills and abilities required to do the work successfully. To be sure that these expectations are clearly understood and taken into account in evaluating candidates, it is highly desirable that the management official directly responsible for the activity in which the position exists participate in identifying the qualifications required.

SCREENING AND RANKING CANDIDATES

The final grouping or ranking of candidates should take into account and balance off the strength and weaknesses of candidates as revealed by other appropriate sources of information, in relation to the total requirements of the position to be filled. Decisions on screening, ranking, and selecting candidates should be based on a careful evaluation of all information available about all candidates. In this process, particular attention should be directed to education, training, or experience that has provided candidates with a grasp of supervisory or managerial theories, techniques, and practices.

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Qualification Standard for Policy Analysis and Administrative Analysis Positions

Policy analysis positions

The requirements for individual policy analysis positions will differ, depending on their grade level and their organizational location. Factors such as the perspectives of top policy officials and sensitivity to organizational mission and objectives influence the nature of the responsibilities placed on a policy analyst. The principal requirements for performing policy analysis functions are listed below, as appropriate to the position to be filled.

- Knowledge of a pertinent professional subject-matter field(s). Typically there is a direct, even critical, relationship between the possession of subject-matter expertise and successful performance of analytical assignments.
- Knowledge of economic theories including microeconomics and the effect of proposed policies on production costs and prices, wages, resource allocations, or consumer behavior; and/or macroeconomics and the effect of proposed policies on income and employment, investment, interest rates, and price level.
- Knowledge of public policy issues related to a subject-matter field.
- Knowledge of the executive/legislative decision-making process.
- Knowledge of pertinent research and analytical methodology and ability to apply such techniques to policy issues, such as:
 - Qualitative techniques, such as performing extensive inquiry into a wide variety of significant issues, problems, or proposals; determining data sources and relevance of findings and synthesizing information; evaluating tentative study findings and drawing logical conclusions; and identifying omissions, questionable assumptions, or inadequate data in the analytical work of others.
 - Quantitative methods, such as cost benefit analysis, design of computer simulation models and statistical analysis including survey methods and regression analysis.
- Knowledge of the programs or organizations and activities to assess the political and institutional environment in which decisions are made and implemented.
- Skill in dealing with decision makers and their immediate staffs. Skill in interacting with other specialists and experts in the same or related fields.

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Qualification Standard for Policy Analysis and Administrative Analysis Positions

- Ability to exercise judgment in all phases of analysis, ranging from sorting out the most important problems when dealing with voluminous amounts of information to ensure that the many facets of a policy issue are explored, to sifting evidence and developing feasible options or alternative proposals and anticipating policy consequences.
- Skill in effectively communicating highly complex technical material or highly complex issues that may have controversial findings, or both, using language appropriate to specialists and/or nonspecialists, facilitating the formulation of a decision.
- Skill in written communication to organize ideas and present findings in a logical manner with supporting, as well as adverse, criteria for specific issues, and to prepare material complicated by short deadlines and limited information.
- Skill in effective oral communication techniques to explain, justify, or discuss a variety of public issues requiring a logical presentation of appropriate facts and information or analysis.
- Ability to work effectively under the pressure of tight time frames and rigid deadlines.

Generally, candidate evaluation is based primarily on relevant academic achievement and/or experience. When evaluating a candidate's academic performance, a determination should be made on the extent to which completed course work has contributed to a knowledge of policy analysis methods, microeconomic and macroeconomic theories, social sciences, statistics, operations research, organizational theory, public finance, logic, or other subject-matter knowledge required to perform the work of the position.

Consideration should be given for active involvement in policy analysis organizations, presentation of technical papers, and participation in seminars. Technical publications should be weighed for their contributions to advancing policy in particular areas rather than on quantity.

Other sources of information that may be useful in evaluating candidates include: work products, e.g., reports, studies, articles, letters, and memoranda; reference inquiries; supervisory appraisals; personal interviews; and results of assessment center activities.

QUALIFICATION STANDARDS OPERATING MANUAL

Qualification Standard for Policy Analysis and Administrative Analysis Positions

Administrative analysis positions

Administrative analysis work does not require specialized subject-matter knowledge, but does require other knowledge and skill to perform staff analytical, planning, and evaluative work concerned with the administrative and operational aspects of agency programs and management. Specifically, administrative analysis work requires:

- Knowledge of the overall mission, functions, and organization of the agency or component, including agency program operations, processes, goals, and objectives.
- Knowledge of the theories, principles, functions, and processes of management and the organization of work to conduct studies of work processes in various organizations to identify, analyze, and recommend solutions to problems or to develop planning guidance.
- Knowledge of evaluative, planning, and analytical processes and techniques (quantitative and qualitative) for measuring the effectiveness, efficiency, and productivity of administrative and technical programs.
- Ability to research problems and issues, including evaluating the content of new or modified legislation to determine its impact on the agency's programs or resources.
- Skill in written and oral communication to prepare briefings or recommendations to managers and to negotiate solutions to disputed recommendations.
- Judgment in problem solving.

Candidate evaluation is based on a combination of relevant academic courses and experience. When evaluating a candidate's academic performance, a determination should be made on the extent to which completed course work has contributed to a knowledge of management and analytical methods, statistics, organizational theory, public finance, logic or other knowledge required to perform the work of the position.

Consideration should be given for active involvement in public administration organizations, presentation of papers, and participation in seminars.

Other sources of information that may be useful in evaluating candidates include work products, e.g., reports, studies, articles, letters, and memoranda; reference inquiries; supervisory appraisals; personal interviews; and results of assessment center activities.

QUALIFICATION STANDARDS OPERATING MANUAL

Qualification Standard for Positions Involving Equal Employment Opportunity Collateral Assignments

These qualification requirements cover Federal equal employment opportunity (EEO) *collateral duties only*. Employees assigned such collateral duties must, of course, meet the qualification requirements for the occupational series and grade levels to which their positions are classified.

DEFINITION OF EEO COLLATERAL ASSIGNMENTS

The EEO collateral assignments are official EEO duties and responsibilities assigned to an employee *in addition* to the primary duties and responsibilities of the position the employee occupies.

EEO ASSIGNMENTS NOT COVERED BY THIS STANDARD

If an assignment has any of the following characteristics it is not a collateral assignment, and this standard should not be used:

- The EEO assignment controls the grade of the position. (Guidance for determining if an assignment is grade-controlling can be found in the "Introduction to the Position Classification Standards.")
- The EEO assignment is the primary reason for establishing or continuing the position.
- The EEO assignment is intended to be a permanent assignment.

The EEO assignments that meet any of the above criteria are *not collateral duties*, and should be treated as continuing regular assignments. The position must be classified according to position classification principles, including principles for classifying mixed-grade positions. If the official EEO assignment results in a promotion, merit promotion procedures must be followed, time-in-grade requirements must be met, the employee must meet qualification requirements for the grade level and series of the resulting new position, and the nature of the promotion action must be consistent with the intended duration of the assignment. Adverse action regulations must be followed if removal of a permanent EEO assignment from a position results in reduction in grade level or pay.

DOCUMENTING EEO COLLATERAL ASSIGNMENTS

Official EEO duties and responsibilities assigned to employees on a collateral basis must be described in the official position description that covers the position the employee occupies. This documentation reflects the requirements imposed on the position by the

QUALIFICATION STANDARDS OPERATING MANUAL

Qualification Standard for Positions Involving Equal Employment Opportunity Collateral Assignments

The EEO collateral assignment, and permits a determination that there is no grade-level effect of the collateral assignment.

Before EEO collateral duties are assigned to any employee, a reasonable effort should be made to determine if the assignment will affect the classification of the position, including grade level, or otherwise constitute a non-collateral assignment.

BASIC QUALIFICATION REQUIREMENTS FOR ALL EEO COLLATERAL ASSIGNMENTS

In addition to meeting the qualification requirements for the series and grade level of their positions, employees who receive EEO collateral assignments should possess the following:

- Understanding of how the IHS policies and practices affect the equal employment opportunities of all employees;
- Understanding of the intent of the laws and regulations governing Federal equal employment opportunity;
- Understanding of the employment problems of underutilized persons and classes in the workforce and labor market, particularly racial and ethnic minorities, women, older workers, people with disabilities, or the economically disadvantaged;
- Ability to establish effective working relationships with and gain the confidence of managers and supervisors at all levels, as well as with employees regardless of their occupation, race, sex, ethnic heritage, or socioeconomic background; and
- Potential to acquire the following:
 - Knowledge of the general structure of the Federal personnel system including classification, staffing, recruitment, performance evaluation, career development, labor relations, appeals, grievances, adverse actions, and employee rights and responsibilities;
 - General knowledge of the missions, organizational structure, and distribution of responsibilities within the organization where assigned; and

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Qualification Standard for Positions Involving Equal Employment Opportunity Collateral Assignments

- Understanding of the current labor market, e.g., types of jobs available, supply of and demand for certain types of skills, recruiting methods, sources of recruitment, and projected employment needs of the organization.

For EEO Counselor Positions: The EEO counselor collateral assignments also require the ability to:

- Learn complaint procedures in detail;
- Learn basic EEO principles and terms;
- Communicate orally to explain procedures and regulatory requirements to complainants and management officials who may be angry, confused, or distressed because of the circumstances that caused the complaint, or because of the complaint itself;
- Obtain and organize facts presented by persons who may be angry, confused, or distressed;
- Conduct factfinding to locate and obtain necessary documentation materials in connection with informal resolution of a complaint;
- Gain an understanding of a particular EEO case, identify the issues, and apply the relevant personnel regulations and principles;
- Clarify issues, discuss issues, and resolve misunderstandings if they exist (during the informal stage of a complaint);
- Report facts objectively; and
- Write simple, clear, and factual narrative statements (for reports).

The EEO counselors who have not demonstrated the required KSAs within a reasonable period of time on the job, e.g., 6 months, should not be retained as EEO counselors.

For EEO Program Manager Positions: In addition to the basic requirements for all EEO collateral assignments, EEO program managers must possess the KSAs required for entry level positions in the Equal Employment Opportunity Series, GS-260.

Additional and higher level knowledge and skills, such as those required for equal employment opportunity specialist positions at higher grade levels, may be required when they are related to the duties and responsibilities of the collateral assignment.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-018

Safety and Occupational Health Management Series

GS-018

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--safety or occupational health fields (safety, occupational health, industrial hygiene), or degree in other related fields that included or was supplemented by at least 24 semester hours of study from among the following (or closely related) disciplines: safety, occupational health, industrial hygiene, occupational medicine, toxicology, public health, mathematics, physics, chemistry, biological sciences, engineering, and industrial psychology.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience in scientific or technical work that provided an understanding of the basic principles and concepts of the safety and occupational health field. Creditable general experience must have demonstrated the achievement of knowledge equivalent to the education described above.

Specialized Experience (for positions above GS-5): Experience in or related to safety and occupational health that provided the specific KSAs to perform successfully the duties of the position. Examples of qualifying specialized experience include:

- Managing safety or occupational health program elements.
- Developing and recommending safety and occupational health policy to higher levels of management.
- Applying safety and occupational health laws, regulations, principles, theories, practices, and procedures to advise on or resolve technical matters dealing with occupational safety and health requirements.
- Developing safety and occupational health standards, regulations, practices, and procedures to eliminate or control potential hazards.
- Developing or implementing programs to reduce the frequency, severity, and cost of accidents and occupational illnesses.
- Designing or modifying workplaces, processes, products, or other systems to control or eliminate hazards.

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GS-018 (continued)

- Inspecting or surveying workplaces, processes, products, or other systems for compliance with established safety and occupational health policies or standards and to identify potential new hazards.
- Training of workers, supervisors, managers, or other safety and occupational health personnel in safety or occupational health subjects.
- Work in occupational fields such as industrial hygienist, safety engineer, fire prevention engineer, health physicist, and occupational health nurse.

OR

CERTIFICATES

Certification as a Certified Safety Professional (CSP), Certified Industrial Hygienist (CIH), or Certified Health Physicist (CHP), or similar certification that included successful completion of a written examination meets the requirements for GS-5. Applicants may also qualify for higher grade levels based on their education and/or experience.

GS-019

Safety Technician Series

GS-019

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Experience that involved: (1) identifying, preventing, or eliminating safety hazards in work methods or environmental conditions; or (2) safety training or promotion. Such experience must have provided a practical knowledge of occupational and environmental safety hazards, survey techniques, and control and preventive methods. Examples of qualifying specialized experience include: biological technician, medical technician, engineering technician, fire prevention inspector, and environmental health worker.

OR

Education and Training:

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours of courses in safety, fire prevention, industrial hygiene, psychology, engineering, or in the agricultural, biological, or physical sciences.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree with major study or at least 24 semester hours in any combination of subjects such as safety, fire prevention, industrial hygiene, or other directly related subjects.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-085

Security Guard Series

GS-085

This is an individual qualification standard.

Note: Competition for Security Guard positions is restricted by law to persons entitled to veterans' preference as long as such applicants are available for appointment.

EXPERIENCE, EDUCATION, AND TRAINING REQUIREMENTS

The following table shows the amount of education and/or experience required to qualify for positions covered by this standard.

GRADE	EXPERIENCE		OR	EDUCATION/TRAINING
	General	Specialized		
GS-2	3 months.	None.		High school graduation or equivalent.
GS-3	6 months.	None.		1 year above high school.
GS-4	6 months.	6 months.		2 years above high school.
GS-5 and above	None.	1 year equivalent to at least next lower level.		None.

Equivalent combinations of education and experience are qualifying for grade levels for which both education and experience are acceptable.

EXPERIENCE

General Experience (for positions at GS-4 and below): Experience such as administrative, technical, clerical, military, or other work that involved following written procedures, rules, or regulations in contacts with coworkers, supervisors, or members of the public to provide a service, respond to inquiries, or obtain information.

Specialized Experience (for positions at GS-4 and above): Experience such as work with a Federal, State, municipal, local, or private protective organization that involved the protection of property against such hazards as fire, theft, damage, accident, or trespass; or maintaining order and protecting life. Such experience must have provided a knowledge

of protective systems and techniques. Acceptable experience includes service in the Armed Services or Coast Guard that involved the performance of guard duties on a regular or intermittent basis. For Security Guard positions in a hospital setting, experience as a psychiatric nursing assistant or a similar position safeguarding patients is qualify.

OR

QUALIFICATION STANDARDS OPERATING MANUAL

GS-085 (continued)

EDUCATION/TRAINING

Education: Successfully completed study at an accredited college or university in any subject is fully qualifying in the amount and level specified in the table.

Training: Successful completion of training in an accredited technical school that covered subjects such as physical security procedures, local laws, or investigative techniques is considered qualifying for specialized experience at the GS-4 level on a month-for-month basis.

INVESTIGATION OF FITNESS

A character investigation may be conducted on applicants selected for employment. The purpose of such an investigation is to secure evidence of the candidate's honesty, integrity, general character, and loyalty to the U.S. Government. Such investigations will be conducted under the security requirements of the hiring agency.

MEDICAL REQUIREMENTS

The duties of these positions require moderate to arduous physical exertion and/or duties of a hazardous nature. The following medical requirements apply to all applicants: good near and distant vision, ability to distinguish basic colors, and ability to hear the conversational voice. Agencies may establish additional, job-related physical or medical requirements provided that the specific position(s) involves the arduous or hazardous duties to which the requirements relate.

Applicants and employees must have the capacity to perform the essential functions of the position without risk to themselves or others. In most instances, a specific medical condition or impairment will not automatically disqualify an applicant or employee. A medical condition or impairment is disqualifying only if the condition, for good medical reason, precludes assignment to or warrants restriction from the duties of the specific position. For some positions, the loss or impairment of a specific function may be compensated for by the satisfactory use of a prosthesis or mechanical aid. Reasonable accommodation shall also be considered in determining an applicant's ability to perform the duties of a position. Reasonable accommodation may include, but is not limited to the use of assistive devices, job modification or restructuring, provision of readers and interpreters, or adjusted work schedules.

All positions involving Federal motor vehicle operation carry the additional medical requirements specified in 5 CFR 930 and the "General Policies and Instructions" section of this Manual.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-099

Safety Technician Student Trainee Series

GS-099

Use the "Group Coverage Qualification Standard for IHS Excepted Service Student Trainee Positions" as appropriate to the appointing authority used.

GS-101

Social Science Series

GS-101

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions." Positions in this series for which other requirements have been established are identified separately.

Basic Requirements:

- A. Degree: behavioral or social sciences; or related disciplines appropriate to the position.
OR
- B. Combination of education and experience--that provided the applicant with knowledge of one or more of the behavioral or social sciences equivalent to a major in the field.
OR
- C. Four years of appropriate experience that demonstrated that the applicant has acquired knowledge of one or more of the behavioral or social sciences equivalent to a major in the field.

GS-102

Social Science Aid and Technician Series

GS-102

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

GS-142

Manpower Development Series

GS-142

Use the "Group Coverage Qualification Standard for Administrative and Management Positions."

GS-180

Psychology Series

GS-180

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

Degree: major or equivalent in psychology for all specializations except clinical psychology and counseling psychology. These two specializations have additional educational requirements, as stated below:

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GS-180 (continued)

Clinical psychology--For positions at grades GS-11 and above, satisfactory completion of all the requirements for the doctoral degree (Ph.D. or equivalent) directly related to full professional work in clinical psychology is required.

Counseling psychology--For positions at grades GS-9 and above, satisfactory completion of 2 full academic years of graduate study directly related to professional work in counseling psychology, or satisfactory completion in an accredited educational institution of all the requirements for a master's degree directly related to counseling psychology is required.

GS-181

Psychology Aid and Technician Series

GS-181

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Experience that involved the observation of and assistance in the application of techniques relating to behavior, capacities, traits, interests, and activities of either humans or, under laboratory conditions, animals. Experience may have been gained in connection with a program of research or direct services in psychology that gave a practical understanding of some of the principles, methods, and techniques of psychology needed to assist professional psychologists.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study that included at least 6 semester hours in courses such as psychology, statistics, or other directly related subjects.

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in subjects as shown above for GS-3.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree with major study or at least 24 semester hours in any combination of subjects as shown above for GS-3.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-184

Sociology Series

GS-184

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

A. Degree: sociology; or social psychology or political science that included at least 24 semester hours in sociology.

OR

B. Combination of education and experience--courses equivalent to a major in sociology (i.e., at least 24 semester hours), plus appropriate experience or additional education.

GS-185

Social Work Series

GS-185

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: social work. Must fulfill all of the requirements for the master's degree in social work in a school accredited by the Council on Social Work Education.

Master's degree with practicum: Applicants who complete all of the requirements for a master's degree in social work that included a practicum are eligible for GS-9.

GS-186

Social Services Aid and Assistant Series

GS-186

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Examples of qualifying specialized experience include:

- Group leader in community or residential recreation or training programs.
- Counselor in a youth summer camp.
- Instructor in a training program for the development of job skills.
- Work that demonstrated the ability to be responsible for and to lead and train members of a job crew.
- Group activities leader in the Armed Services.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-186 (continued)

- Unit leader-monitor-proctor for a dormitory group in a boarding school or other residential facility.
- Aid or assistant to professional or specialist staff in such fields as personnel (private or government), employment guidance in a vocational or academic institution, social service, or manpower development.
- Aid or assistant to professional or associate staff engaged in work of a social services nature in private, public welfare, government program, or community organizations, or in voluntary activities.
- Aid or assistant to professional or specialist staff working with individuals who are addicted to or abuse alcohol and/or drugs.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study.

For GS-4: Successful completion of 2 years of study that (a) included at least 12 semester hours of subjects directly related to the work of the position, or (b) was supplemented by experience in activities that afforded the opportunity to acquire and demonstrate the skills required by the position. (The supplementary experience may have been gained, for example, in part-time or summer employment, in volunteer social welfare or recreation programs, or in community organizations.)

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree that (a) included at least 24 semester hours in any combination of subjects directly related to the work of the position; (b) included a major in social behavior, human behavior, or health care or; (c) was supplemented by specialized experience as described above for GS-4.

GS-187

Social Services Series

GS-187

This is an individual qualification standard.

EDUCATION AND EXPERIENCE REQUIREMENTS

EXPERIENCE

General Experience (for GS-5 positions): Three years of general experience, 1 year of which was equivalent to at least GS-4, is qualifying for GS-5 level positions. General experience is work in a social services activity or other organization that required the

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GS-187 (continued)

ability to conduct interviews; to collect and analyze pertinent facts; to provide needed information, advice, and practical assistance; and to prepare clear concise personal histories and factual reports.

Specialized Experience (for positions above GS-5): One year of specialized experience equivalent to at least the next lower level in the normal line of progression is qualifying for positions above the GS-5 level. Specialized experience is experience in a program of direct social welfare services that required the application of program policy and operations knowledge in providing social welfare services and/or assisting social workers.

OR

EDUCATION

Undergraduate Education: Successful completion of a full 4-year course of study in any field leading to a bachelor's degree, in an accredited college or university, is qualifying for GS-5 level positions.

Graduate Education: Major study--social sciences. One full academic year of graduate study is qualifying for GS-7. Graduate education is not creditable for positions above the GS-7 level.

Note: Equivalent combinations of education and experience are also qualifying for grade levels for which both education and experience are acceptable.

GS-188

Recreation Specialist Series

GS-188

Use the individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--general recreation, of one of the appropriate fields of recreation such as outdoor recreation; recreation and parks leadership; wild land recreation management; natural resources recreation; youth recreation; public, urban, or community recreation; special populations recreation (e.g., senior citizens, institutional, etc.); or physical education.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided a knowledge of the goals, principles, methods, and techniques of recreation, and an understanding of the interests of individuals or groups.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-188 (continued)

Specialized Experience (for positions above GS-5): Experience that demonstrated the ability to apply the principles of one or more specialty areas of recreation. Examples of qualifying specialized experience include:

- Planning, organizing, coordinating, supervising, or evaluating community, industrial, outdoor, institutional, or other recreational programs.
- Planning, establishing, or evaluating a recreational curriculum for junior college or higher academic levels.
- Instructing in the principles and techniques of recreational program planning and management.
- Serving in a leadership role in the programs and activities of local, regional, and/or national recreational organizations.

GS-189

Recreation Aid and Assistant Series

GS-189

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Examples of qualifying specialized experience include:

- Group leader, counselor, or similar work in public and private recreation programs for adults or children such as summer camps, local playgrounds, YWCA and YMCA clubs, Boy Scouts and Girl Scouts, urban community centers, or resort recreational activities.
- Teacher's aid in elementary school recreation or physical education program, with emphasis on development of general recreational skills and abilities.
- Aid or assistant assignments in recreation while on active military service.
- Aid or assistant in the organization and administration of recreation activities, such as preparing activities calendars, maintaining attendance records, and providing information concerning schedules and activities.
- Summer aid in a State or national park, with duties related to the recreational activities of visitors to campsites, trails, picnic areas, nature and raft centers, and boating and fishing areas (e.g., demonstrating camping techniques and park safety, conducting nature tours, and overseeing farm animal areas provided for children).
- Sales or stock clerk in a recreation supplies and equipment shop.

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GS-189 (continued)

- Aid or assistant in the issuance of authorized property, and in the maintenance of inventory control and accountability for such property in a recreation facility.
- Aid or assistant in a hotel or resort recreation service, with duties such as setting up areas for games, tournaments, and other organized group recreational activities.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study.

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in courses related to recreation (e.g., basic psychology, group dynamics, physical education, arts and crafts, etc.).

For GS-5: Successful completion of a 4-year course of study leading to a bachelor's degree with major study or at least 24 semester hours in courses related to recreation or physical education.

GS-190

General Anthropology Series

GS-190

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification for Professional and Scientific Positions."

Basic Requirements:

A. Degree: appropriate field of anthropology.

OR

B. Combination of education and experience--courses equivalent to a major, or a combination of courses totaling at least 24 semester hours in an appropriate field of anthropology, or related course work, plus appropriate experience or additional education.

OR

C. Experience--four years of appropriate experience in anthropology performing research, museum work, or similar professional-level work.

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GS-193

Archeology Series

GS-193

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

A. 1. Degree: that included 3 semester hours each in the following course areas:

- History of archeology.
- Archeology of a major geographical area such as North America or Africa.
- Regional archeology, archeological cultures, or sites in a specific part or portion of a major geographical area to acquire or develop a foundation for regional specialization for professional development.
- Theory and methods of archeology. Methods include, but are not limited to, typology, classification, sampling, cultural evolution, diffusion, dating, and analytical techniques.
- Archeological field school, to provide a basic understanding of theoretical and practical approaches to research design implementation, field preservation techniques, and report preparation by participation in actual field work.

AND

- Six semester hours of related course work in:
 - Geography, geology, or cultural geography;
 - History, historiography, or historical archeology;
 - Environmental studies;
 - Scientific writing (nonfiction English composition); and/or
 - Surveying;

AND

- Archeological field school.

OR

2. *Related Curriculum*--Degree in anthropology (with emphasis on ethnology, physical anthropology, or scientific linguistics), history, American studies, or a related discipline may be accepted as satisfying in full the educational requirements, provided the curriculum supplied academic course work sufficiently similar to the requirements in A.1 (including archeological field school).

OR

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GS-334

Computer Specialist Series

GS-334

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

NOTE: Applicants may meet the minimum qualification requirements for GS-5 and GS-7 positions in this series in two ways. These are described below as Alternatives A and B. These alternatives are designed to allow eligibility either through demonstrating prior computer-related education or experience (A) or demonstrating general analytical ability through other kinds of education or experience.

EDUCATION

Undergraduate and Graduate Education:

Alternative A (for GS-5 through GS-11): Major study--computer science, information science, information systems management, mathematics, statistics, operations research, or engineering, or course work that required the development or adaptation of computer programs and systems and provided knowledge equivalent to a major in the computer field.

Alternative B (for GS-5 and GS-7 only): Major study--any field.

OR

EXPERIENCE

General Experience (for GS-5 positions):

Alternative A: Experience that provided a basic knowledge of data processing functions and general management principles that enabled the applicant to understand the stages required to automate a work process. Experience may have been gained in work such as computer operator or assistant, computer sales representative, program analyst, or other positions that required the use or adaptation of computer programs and systems.

Alternative B: Meet general experience requirements in the "Group Coverage Qualification Standard for Administrative and Management Positions."

Specialized Experience (for positions above GS-5):

For GS-7: Experience in the performance of tasks such as:

- Translating detailed logical steps developed by others into language codes that computers accept where this required understanding of procedures and limitations are appropriate to use of a programming language.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-334 (continued)

- Interviewing subject-matter personnel to get facts regarding work processes, and synthesizing the resulting data into charts showing information flow.
- Operating computer consoles where this involved choosing from among various procedures in responding to machine commands or unscheduled halts.
- Scheduling the sequence of programs to be processed by computers where alternatives had to be weighed with a view to production efficiency.
- Preparing documentation on cost/benefit studies where this involved summarizing the material and organizing it in a logical fashion.

Such skills are typically gained in the computer field or through performance of work where the primary concern was the subject matter of the computer application (e.g., supply, personnel, chemical process control), and computer-related efforts were required to facilitate the basic duties. Also, work in management analysis, program analysis, or a comparable field may have provided such skills. (Such experience may also have been obtained by applicants for GS-9 and GS-11 positions in the field.)

For GS-9: Experience that demonstrated knowledge of computer requirements and techniques in carrying out project assignments consisting of several related tasks, such as typically is the case in development of minor modifications to parts of a system on the basis of detailed specifications provided. The assignments must have shown completion of the following, or the equivalent:

- Analysis of the interrelationships of pertinent components of the system;
- Planning the sequence of actions necessary to accomplish the assignment; and
- Personal responsibility for at least a segment of the overall project.

For GS-11: Experience that demonstrated accomplishment of computer project assignments that required a range of knowledge of computer requirements and techniques. For example, assignments that would show, on the basis of general design criteria provided, experience in developing modifications to parts of a system that required significant revisions in the logic or techniques used in the original development. Accomplishments, in addition to those noted for the GS-9 level, normally involve the following, or the equivalent:

- Knowledge of the customary approaches, techniques, and requirements appropriate to an assigned computer application area or computer specialty area in an organization;

QUALIFICATION STANDARDS OPERATING MANUAL

GS-334 (continued)

- Planning the sequence of actions necessary to accomplish the assignment where this entailed coordination with others outside the organizational unit and development of project controls; and
- Adaptation of guidelines and precedents to the needs of the organization.

For GS-12 and above: Experience that demonstrated accomplishment of computer project assignments that required a wide range of knowledge of computer requirements and techniques pertinent to the position to be filled. This knowledge is generally demonstrated by assignments where the applicant analyzed a number of alternative approaches in the process of advising management concerning major aspects of ADP system design, such as what system interrelationships must be considered, or what operating mode, system software, and/or equipment configuration is most appropriate for a given project.

GS-335

Computer Clerk and Assistance Series

GS-335

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-340

Program Management Series

GS-340

Use the "Group Coverage Qualification Standard for Administrative and Management Positions."

GS-341

Administrative Officer Series

GS-341

Use the "Group Coverage Qualification Standard for Administrative and Management Positions."

QUALIFICATION STANDARDS OPERATING MANUAL

GS-342

Support Services Administration Series

GS-342

This is an individual qualification standard.

EDUCATION AND EXPERIENCE REQUIREMENTS

EXPERIENCE

General Experience (for GS-5 positions): Three years of progressively responsible experience, 1 year of which was equivalent to at least GS-4, is qualifying for GS-5 level positions. General experience is experience that involved dealing with others in person-to-person work situations, in obtaining and providing a variety of services for an organization, or other work that demonstrated the ability to perform successfully the work of the position to be filled.

Specialized Experience (for positions above GS-5): One year of specialized experience equivalent to at least the next lower level in the normal line of progression that demonstrated knowledge of the methods and procedures for providing or performing a variety of functions and services applicable to the position to be filled; ability to plan, organize, and control work involving diverse activities; ability to gain cooperation and coordinate the work of others; and skill in oral and written communications. Examples of qualifying specialized experience include:

- Management analyst or technician or other work that included study, analysis, or evaluation leading to the development or improvement of managerial or administrative policies, practices, and procedures.
- Administrative officer or assistant, budget administration, program analysis, or other work that demonstrated knowledge of an organization and its functions, and the ways in which support services can facilitate the work of the organization.
- Office management experience that included responsibility for directing a variety of support services such as typing, mail processing, purchase of supplies and equipment, etc.
- Secretarial work that required monitoring and coordinating administrative and processing work of subordinate elements through a system of internal procedures, controls, production, progress reporting, etc., to insure the efficient operation of an organization.
- Military experience that included responsibility for directing a variety of support functions such as communications, property management, mail service, facilities and equipment maintenance, etc.

OR

QUALIFICATION STANDARDS OPERATING MANUAL

GS-357

Coding Series

GS-357

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-360

Equal Opportunity Compliance Series

GS-360

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-361

Equal Opportunity Assistance Series

GS-361

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-382

Telephone Operating Series

GS-382

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-391

Telecommunications Series

GS-391

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--electrical or electronic engineering, mathematics, physics, public utilities, statistics, computer science, telecommunications management, information systems management, business administration, industrial management, or other fields related to the position to be filled.

Other Education: Communications/electronics or automatic data processing training in technical institutes or business schools above the high school level or in Armed Forces schools that included advanced instruction in addition to basic courses, may be substituted for general experience on a month-for-month basis.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided a basic knowledge of telecommunications functions, problems, and/or solutions.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-391 (continued)

Specialized Experience (for positions above GS-5): Experience in evaluating, analyzing, developing, managing, or improving communications systems, procedures, and requirements that demonstrated knowledge of current developments and trends in communications concepts and technology.

GS-392

General Telecommunications Series

GS-392

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-401

General Biological Sciences Series

GS-401

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

- A. Degree: biological sciences, agriculture, natural resource management, chemistry, or related disciplines appropriate to the position.
- OR
- B. Combination of education and experience--Courses equivalent to a major, as shown in A above, plus appropriate experience or additional education.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-403

Microbiology Series

GS403

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

A. Degree: microbiology; or biology, chemistry, or basic medical science that included at least 20 semester hours in microbiology and other subjects related to the study of microorganisms, and 20 semester hours in the physical and mathematical sciences combining course work in organic chemistry or biochemistry, physics, and college algebra, or their equivalent.

OR

B. Combination of education and experience--courses equivalent to a major in microbiology, biology, chemistry, or basic medical science that included courses as shown in A above, plus appropriate experience or additional education.

Graduate Education: Microbiology, or specific area of study such as bacteriology, virology, mycology, algology, protozoology, parasitology, immunology, serology, microbial genetics, or soil microbiology; or specific applied fields of microbiology such as clinical and public health microbiology, food technology, production processes, industrial fermentation, pollution, etc. Graduate study in related fields such as experimental pathology, infectious diseases, epidemiology, biochemistry, animal or plant physiology, genetics, plant pathology, and insect disease control, may also be pertinent, provided it has direct application to microbiological work.

Evaluation of Education: Microbiology is a broad field of science encompassing a number of scientific disciplines or areas of science, the fields in which this science is applied, and related fields where the work is concerned with or involves microbiology. The scientific disciplines or areas of this science include bacteriology, immunology, serology, algology, mycology, parasitology, protozoology, rickettsiology, tissue culture, virology, and similar disciplines or areas of science. The applied fields include environmental, food, dairy, soil, industrial, public health, clinical, and agricultural microbiology, and similar areas in which microbiology is applied. Related fields include taxonomy and systematics, plant, animal, or human physiology or pathology, infectious diseases, epidemiology, ecology, and similar areas of science where the work is directly related or applies to microbiology. Except where the course work deals with a limited and specific segment of the science, where it might be limited in usefulness, most of the work, including that dealing with the development and use of microbiological methods, procedures, and techniques, is qualifying. In interpreting the substantive value of the course work, credit may be given for courses in related fields, depending on the degree to which the courses are related to microbiological work.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-403 (continued)

Evaluation of Experience: For positions at GS-9 that involve a substantial amount of work in a specific specialized area or applied field of microbiology, at least 6 months of the experience must either have been in the appropriate area of specialization or applied field of microbiology, or have direct application in the area for which the applicant is being considered. For the GS-11 and higher grade levels of such specialized positions, the experience must have been sufficiently specialized to insure adequate familiarity with the area of specialization or applied field of microbiology, or have direct application in the area for which the applicant is being considered.

Alternate requirement: For GS-14 clinical and public health microbiology positions, certification by the American Board of Medical Microbiology/American Board of Medical Laboratory Immunology, or election to Fellowship in the American Academy of Microbiology fully meets the experience requirement for such positions.

GS-404

Biological Science Technician Series

GS-404

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Experience must have been related to the work of the position for which application is made. The specialized experience required for some positions in this series is normally work performed in a controlled environment. Examples of qualifying specialized experience include:

- Research activity or control program work.
- Nursery work that required the growing and maintenance of plants in a controlled environment.
- Work comparable to that with a large dairy farm where production records, animal environment, and sanitary conditions were kept in accordance with modern dairy practice.

Farming experience that was not performed in a controlled environment, or experience as a laborer who was not responsible for planning and scheduling his/her own work, but only performed assigned tasks, would not qualify as specialized experience.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study that included at least 6 semester hours in any combination of scientific or technical courses such as biology, chemistry, statistics, entomology, animal husbandry, botany, physics, agriculture, or mathematics.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-404 (continued)

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in any combination of courses such as those shown above for GS-3. At least 6 semester hours of courses must be directly related to the position to be filled.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree with major study or at least 24 semester hours in any combination of courses such as those shown above for GS-3. At least 6 semester hours of courses must have been directly related to the position to be filled. The successful completion of a full course of study of at least 12 months in a school for clinical laboratory technicians may be substituted for the 1 year of specialized experience required at the GS-5 level for positions involving microbiology and biochemistry technician work.

GS-405

Pharmacology Series

GS-405

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: major in an appropriate biological, medical, veterinary, or physical science, or in pharmacy that included at least 30 semester hours in chemistry and physiology and 12 semester hours in pharmacology.

Evaluation of Education: The positions in this series are multidisciplinary positions, since the work involves the application of a scientific knowledge of biochemistry, physiology, pharmacology, and such related sciences as microbiology, biophysics, genetics, mathematics, and statistics.

Courses in chemistry, organic chemistry, biochemistry, general physiology, and animal, human, microbial, or cellular physiology may be used to meet the 30-semester-hour requirement in chemistry and physiology. Under some circumstances, i.e., where the course work provided additional insight into the biophysical, biochemical, and physiological relationships involved, courses in such subjects as cytology, embryology, cellular or microbial genetics, and biophysics may be used to meet this requirement.

Courses in pharmacology, pharmacodynamics, pharmacotherapeutic, molecular pharmacology, and other similar subjects may be used to meet the 12-semester-hour requirement in pharmacology. Courses dealing intensively with pharmacologically-oriented subjects may also be used to meet this requirement.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-415

Toxicology Series

GS-415

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: toxicology; or an appropriate discipline of the biological, medical, or veterinary sciences that included at least 30 semester hours in chemistry, biochemistry, or physiology, and 12 semester hours in toxicology.

Evaluation of Education: The positions in this series are multidisciplinary positions because the work may involve the application of a scientific knowledge of anatomy, chemistry, biochemistry, physiology, pathology, toxicology, and related sciences such as microbiology, biophysics, entomology, genetics, mathematics, and statistics.

Applicants may have acquired a knowledge of the methods and techniques applied in performing toxicological work through various fields of scientific inquiry. Traditionally, academic training in toxicology has been given at the graduate level in connection with the work of a school of veterinary medicine or a school of medicine. Students who enter these schools directly after completing their undergraduate programs are usually trained in anatomy, toxicology, pharmacology, biochemistry, or physiology. Many toxicologists enter the field after taking graduate work in anatomy, biochemistry, chemistry, or physiology, and complete their doctoral program in these fields, or get their M.D. or Doctor of Veterinary Medicine. Typically, they then acquire experience or work toward a Ph.D. in toxicology.

Courses in anatomy, chemistry, organic chemistry, biochemistry, biology, histology, and animal, human, microbial, or cellular physiology may be used to meet the 30-semester-hour requirement in chemistry, biochemistry, and physiology. Courses in statistics, bioassay, and test design may also apply to this requirement. Courses in cytology, embryology, cellular or microbial genetics, and biophysics may also be used to meet this requirement in those instances where the course work provided additional insight into the biophysical, biochemical, and physiological relationships involved. Only toxicology courses may be used to meet the requirement for 12 semester hours in toxicology. This may include courses dealing intensively with toxicological search, methods in toxicology, essentials of toxicology, the study and review of toxicological literature, special reading courses, or other toxicologically-oriented subjects.

GS-499

Biological Science Student Trainee Series

GS-499

Use the "Group Coverage Qualification Standard for IHS Excepted Service Student Trainee Positions" as appropriate to the appointing authority used.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-510 (continued)

3. Completion of the requirements for a degree that included substantial course work in accounting or auditing, e.g., 15 semester hours, but that does not fully satisfy the 24-semester-hour requirement of paragraph A, provided that (a) the applicant has successfully demonstrated the ability to perform work of the GS-11 or higher grade level in accounting, auditing, or a related field, e.g., valuation engineering or financial institution examining; (b) a panel of at least two higher level professional accountants or auditors has determined that the applicant has demonstrated a good knowledge of accounting and of related and underlying fields that equals in breadth, depth, currency, and level of advancement that which is normally associated with successful completion of the 4-year course of study described in paragraph A; and (c) except for literal nonconformance to the requirement of 24 semester hours in accounting, the applicant's education, training, and experience fully meet the specified requirements.

GS-511

Auditing Series

GS-511

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

- A. Degree: accounting; or a degree in a related field such as business administration, finance, or public administration that included or was supplemented by 24 semester hours in accounting. The 24 hours may include up to 6 hours of credit in business law. (The term "accounting" means "accounting and/or auditing" in this standard. Similarly, "accountant" should be interpreted, generally, as "accountant and/or auditor.")

OR

- B. Combination of education and experience--at least 4 years of experience in accounting, or an equivalent combination of accounting experience, college-level education, and training that provided professional accounting knowledge. The applicant's background must also include *one* of the following:
 1. Twenty-four semester hours in accounting or auditing courses of appropriate type and quality. This can include up to 6 hours of business law;
 2. A certificate as Certified Public Accountant or a Certified Internal Auditor, obtained through written examination; or

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-601

General Health Science Series

GS-601

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: major study in an academic field related to the health sciences or allied sciences appropriate to the work of the position.

Evaluation of Experience for Grants Administration Positions: For positions at grades GS-12 and above involved in professional work in grants administration, qualifying experience is considered to be experience in grants administration in areas of science similar or related to the work of the position for which application is made, provided such experience involved professional judgment of a kind and level of difficulty and responsibility essential to successful performance in the position to be filled.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-602

Medical Officer Series

GS-602

This is an individual qualification standard.

Basic Requirements:

Degree: Doctor of Medicine or Doctor of Osteopathy from a school in the U.S. or Canada approved by a recognized accrediting body in the year of the applicant's graduation. [A Doctor of Medicine or equivalent degree from a foreign medical school that provided education and medical knowledge substantially equivalent to accredited schools in the U.S. may be demonstrated by permanent certification by the Educational Commission for Foreign Medical Graduates (ECFMG) (or a fifth pathway certificate for Americans who completed premedical education in the U.S. and graduate education in a foreign country).]

Graduate Training: Subsequent to obtaining a Doctor of Medicine or Doctor of Osteopathy degree, a candidate must have had at least 1 year of supervised experience providing direct service in a clinical setting, i.e., a 1-year internship or the first year of a residency program in an institution accredited for such training. (This 1 year of supervised experience may be waived for research or administrative positions not requiring direct patient care.) For purposes of this standard, graduate training programs include only those internship, residency, and fellowship programs that are approved by accrediting bodies recognized within the U.S. or Canada. Listings of accredited programs are published yearly in the Directory of Residency Training Programs and the Yearbook and Directory of Osteopathic Physicians.

- An internship program involves broadly based clinical practice in which physicians acquire experience in treating a variety of medical problems under supervision (e.g., internal medicine, surgery, general practice, obstetrics-gynecology, and pediatrics). Such programs are in hospitals or other institutions accredited for internship training by a recognized body of the American Osteopathic Association (AOA).
- A residency program involves training in a specialized field of medicine in an institution accredited for training in the specialty by a recognized body of the American Medical Association (AMA) or AOA.
- A fellowship program involves advanced training (beyond residency training) in a given medical specialty in either a clinical or research setting in a hospital or other institution accredited in the U.S. for such training.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-602 (continued)

Licensure: For positions involving patient care, candidates must have a permanent, full, and unrestricted license to practice medicine in a State, District of Columbia, the Commonwealth of Puerto Rico, or a territory of the U.S. Applications will be accepted from physicians who are not currently licensed; however, if selected for appointment, they must (a) obtain a license before entering on duty, or (b) meet one of the following provisions:

- **Waiver of Licensure Requirement:** An agency may waive the licensure requirement for positions not involving direct patient care, e.g., positions performing disability evaluations, positions performing solely research, or administrative program managers. If the agency does not waive the license requirement for these kinds of positions, candidates may be appointed subject to obtaining a license within 1 year.
- **Appointments Pending Meeting Licensure Requirement:** Individual circumstances may warrant appointments pending meeting the licensure requirement (e.g., when a candidate has a temporary license to practice until the next regular session of the licensing board). Persons appointed pending licensure may not be retained beyond 1 year of appointment if they do not obtain the license.

Applicants who meet the basic requirements qualify for GS-11 positions.

Additional Requirements for Grades GS-12 and Above:

The requirements below are grouped according to types of programs-clinical and training, aviation medical, occupational health, disability evaluation, maternal and child health, and research.

- **Clinical and Training Programs--Within Federal clinical and training programs, a distinction is made between general practice and specialist positions. General practitioners must be skilled in recognizing various medical pathologies that require referral to specialists for diagnostic and treatment procedures. Graduate training and experience must, therefore, be well rounded. Specialist positions require graduate training and experience related to the specialty and subspecialty of the position to be filled. Experience may not be substituted for training essential specialization and requirements of recognized accrediting American medical specialty boards. These boards are authorized to conduct examinations to determine the competence of physicians in the specialty, to issue certificates of qualification, to participate in evaluating the quality of residency programs, and to determine the requirements for certification.**

QUALIFICATION STANDARDS OPERATING MANUAL

GS-602 (continued)

General Practice positions

For GS-12--2 years of graduate training or equivalent experience and training.

For GS-13--3 years of graduate training or equivalent experience and training.

For GS-14 and above--In addition to the requirements for GS-13, 1 year of appropriate experience equivalent to at least the next lower grade level.

Specialist positions

For GS-13--3 years of residency training in the specialty of the position to be filled or equivalent experience and training.

For GS-14--4 years of residency training in the specialty of the position to be filled or equivalent experience and training.

For GS-15--5 years of residency training in the specialty of the position to be filled or equivalent experience and training.

- *Disability Evaluation Programs--The KSAs required for most disability evaluation positions may have been obtained in the primary care field. However, when positions involve evaluating specialized medical cases or developing specialized guides and require training and experience in a specific area of medicine (e.g., general surgery, psychiatry, neurology), the requirements shown above for Specialist positions should be applied.*

For GS-12--2 years of graduate training or equivalent training and experience that provided KSAs for the work of the position to be filled.

For GS-13 and above--3 years of graduate training or equivalent training and experience that included at least 1 year of experience in a disability evaluation program in government or industry equivalent to at least the next lower grade level.

- *Aviation Medical Programs--In addition to a residency in aerospace medicine, KSAs for work in this program area may have been acquired in fields such as internal medicine, pulmonary disease, cardiovascular disease, family practice, preventive medicine, occupational health, or public health.*

For GS-12--2 years of residency training or equivalent training, education, and experience that provided the skills and knowledge required to perform the work of the position to be filled.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-602 (continued)

For GS-13--3 years of residency training in aerospace medicine or equivalent training, education, and/or experience that included at least 1 year of experience in aviation medical programs.

For GS-14--1 year of appropriate graduate training or experience in aviation or aerospace medical programs equivalent to at least the GS-13 level.

For GS-15--1 year of work experience equivalent to at least the GS-14 level in aviation or aerospace medical programs.

- *Occupational Health Programs--In addition to a residency program in occupational medicine, KSAs for work in this program area may have been acquired in family practice, internal medicine, surgery, pathology, dermatology, radiology, physical medicine and rehabilitation, public health, aerospace medicine, and general preventive medicine.*

For GS-12--2 years of residency training or equivalent training, education, and experience that provided the skills and knowledge required to perform the work of the position to be filled.

For GS-13--3 years of residency training in occupational medicine or equivalent training, education, and experience that included at least 1 year of experience in an occupational health program in an industrial or office-type establishment.

For GS-14 and above--1 year of appropriate graduate training or experience in occupational health programs equivalent to at least the next lower grade level.

- *Maternal and Child Health Programs--Medical fields that provide the basic KSAs for maternal and child health work include pediatrics, obstetrics-gynecology, family practice, and subspecialties of preventive medicine.*

For GS-12--2 years of graduate training, education, or appropriate experience that provided the skills and knowledge required to perform the work of the position to be filled.

For GS-13--3 years of graduate training, or equivalent training, education, and experience in an appropriate field of medicine.

For GS-14 and above--1 year of appropriate experience in maternal and child health programs equivalent to at least the next lower grade level.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-602 (continued)

- *Research Programs*--If medical officers in this program area conduct research and have patient care responsibility, they must meet the licensure requirement and the experience and training requirements described in the applicable program area above.

For GS-11--In addition to meeting the minimum educational requirement, applicants must show demonstrated interest in and aptitude for medical research work, e.g., activities in medical school, residency, training and fellowships that provided opportunities to demonstrate interest in research.

For GS-12--1 year of medical research experience; or 1 year of graduate training in which the applicant demonstrated interest in and aptitude for medical research; or 1 year of graduate study in an accredited college or university in a field of science (e.g., pathology, pharmacology, physiology, microbiology, biochemistry, zoology) closely related to the work of the position to be filled.

For GS-13--An earned doctorate, e.g., Ph.D. or Sc.D. (in addition to the Doctor of Medicine or Doctor of Osteopathy degree) from an accredited college or university in a field of science directly related to medicine and closely allied to the position to be filled; or, in addition to meeting the requirements for GS-12, 2 years of graduate training or medical research experience that demonstrated ability to do independent major medical research.

For GS-14 and above--One year of experience equivalent to at least the next lower grade level that demonstrated ability to do significant medical research in a particular medical field.

EVALUATION OF CANDIDATES

1. *Interviews*: Applicants may be interviewed to assure that they possess the degree of skill in interpersonal relationships required for satisfactory performance of the duties of the position to be filled.
2. *Substitution of Experience for Residency Training*: Experience may not be substituted for residency training that is essential for the performance of specialized duties. For example, specialists such as psychiatrists and surgeons must complete the number of years of accredited residency training required in their respective specialties. An exception may be made when a peer panel of physicians (subject-matter experts) determines and documents that the KSAs acquired in professional medical practice are equivalent to those acquired during the same period of time in a graduate training program.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-602 (continued)

3. **Teaching Experience:** Graduate teaching experience as a member of the faculty in a school of medicine or school of public health may be credited for training positions or as appropriate for specialist positions. (Teaching undertaken as a part of a residency or fellowship training does not satisfy this requirement.)
4. **Grade Credit for Creative Research Contributions:** For positions involving substantial clinical investigations or basic or applied research, extra grade credit may be given for positive evidence or personally performed highly creative or outstanding research leading to major advances in a specific area of research, e.g., development of a basic principle, concept, method, approach, technique, or body of basic information that opened the way for major advancements, breakthroughs, or new applications. In such cases, candidates who meet the requirements for GS-13 or GS-14 may be rated eligible for the next higher grade.

GS-603

Physician's Assistant Series

GS-603

This is an individual qualification standard.

Basic Requirements:

A broad background of knowledge of the medical environment, practices, and procedures such as would be acquired by a bachelor's degree in a health care occupation such as nursing, medical technology, or physical therapy, or by 3 years of responsible and progressive health care experience such as medical corpsman, nursing assistant, or medical technician; *and* successful completion of a certificate or diploma program of a least 12 months, including clinical training or preceptorship, specifically designed for professional-caliber physician's assistants that provide the knowledge and ability required to take a detailed medical history, to conduct a physical examination, to follow observation procedures, to order and perform diagnostic and therapeutic tasks, and to exercise a degree of judgment in integrating and interpreting findings on the basis of general medical knowledge; or equivalent education and training.

OR

Successful completion of a full 4-year program for physician assistants leading to a bachelor's degree.

The course of study must be approved by a nationally-recognized professional body such as the Committee on Allied Health Education and Accreditation or the Accrediting Bureau of Health Education Schools, or by a panel of physicians established by a Federal agency for this purpose.

Applicants who meet the basic requirements qualify for GS-7.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-603 (continued)

Additional Requirement for Grades GS-9 and Above:

EDUCATION

Applicants who have completed 3 full years of a curriculum in an accredited medical school leading to the Doctor of Medicine or Doctor of Osteopathy degree may be rated eligible for GS-9.

Applicants who have completed the requirements for the degrees of Doctor of Medicine or Osteopathy, but who lack licensure to practice medicine in the U.S., may be rated eligible for GS-11.

OR

EXPERIENCE

One year of specialized experience equivalent to at least the next lower grade level. The required experience must have demonstrated the ability to perform professional-caliber medical work as a physician's assistant with minimal supervision, including the exercise of a degree of judgment in integrating and interpreting diagnostic findings and in determining the need for referral to a physician.

Evaluation of Experience: Applicants qualifying on the basis of specialized experience must have the following:

- Ability to identify a medical problem and determine appropriate action to meet the problem, including referral to a physician.
- Knowledge and understanding of the environment, principles, ethics, and special human relationships in the field of medicine.
- Knowledge of the medical, biological, and physical sciences related to the applicable area of medicine.
- Knowledge of and ability to perform specified diagnostic and therapeutic practices and procedures.
- Ability to work responsibly with physicians and other members of the medical team, and to deal effectively with patients.
- Ability to communicate effectively, both orally and in writing.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-610

Nurse Series

GS-610

This is an individual qualification standard.

Basic Requirements:

Education: Degree or diploma from a professional nursing program approved by the legally designated State accrediting agency at the time the program was completed by the applicant. (One year of nursing experience as a military corpsman that has been accepted by a State licensing body may be accepted in lieu of education at the GS-4 level.)

Registration: Applicants must have active, current registration as a professional nurse in a State, District of Columbia, the Commonwealth of Puerto Rico, or a territory of the U.S. An applicant who has graduated from an approved nursing educational program within the past 12 months may be appointed pending State registration as a professional nurse within 6 months of appointment. No person appointed pending registration may be retained beyond 6 months, or promoted, if registration has not been attained.

See Education/Experience requirements table on following page.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-610 (continued)

The following table shows the amounts of education and/or experience required to qualify for positions covered by this standard.

GRADE	EDUCATION	AND/OR	EXPERIENCE
GS-4	Completion of a program of less than 30 months' duration or associate degree.	or	1 year of nursing experience as a military corpsman.
GS-5	Completion of a program of less than 30 months.		1 year of professional nursing, or of nursing assistant experience under the supervision of a professional nurse.
	or	Completion of a program of at least 30 months' duration or 4 academic years above high school-or bachelor's degree.	None.
GS-7	Completion of a professional nursing program.	and	1 year of experience equivalent to a least the GS-5 level.
	or	1 full year of graduate education or bachelor's degree with S.S.A.	None.
GS-9	2 full years of progressively higher level graduate education or a master's or equivalent degree.	or	1 year of experience equivalent to a least the GS-7 level.
GS-11	Completion of all requirements for a doctoral degree (Ph.D. or equivalent) or 3 full years of progressively higher level graduate education.	or	1 year of experience equivalent to at least the GS-9 level.
GS-12 and above	None.		1 year of experience equivalent to at least the next lower grade level.
Equivalent combinations of education and experience are qualifying for all grade levels and positions for which both education and experience are acceptable.			

QUALIFICATION STANDARDS OPERATING MANUAL

GS-610 (continued)

Evaluation of Education: At the GS-5 level, successfully completed undergraduate course work in nursing; the behavioral, physical, or biological sciences related to nursing; nutrition; public health; and maternal and child health in excess of that required for completion of an associate degree may be substituted for professional nursing experience at the rate of 1 academic year for 9 months of experience. Applicants for Community Health Nurse positions at GS-5 and above must have graduated from a baccalaureate or higher degree nursing program.

Graduate-level education must have been in nursing with a concentration in a field of nursing (e.g., teaching, a clinical specialty, research, administration, etc.) or in a closely related non-nursing field directly applicable to the requirements of the position to be filled. Applicants for nurse anesthetist positions at GS-9 and above must have graduated from a course of study for nurses in anesthesia of at least 18 month's duration that was accredited by the American Association of Nurse Anesthetists for the year of their graduation. Applicants for nurse midwife positions must have completed an organized program of study and clinical experience recognized by the American College of Nurse Midwives.

Evaluation of Experience: Experience must have equipped the applicant with the particular KSAs to perform successfully the duties of the position. At GS-9 and above, many positions require experience in a specialty area of nursing.

GS-620

Practical Nurse Series

GS-620

This is an individual qualification standard.

Basic Requirements:

Licensure: Candidates must be currently licensed to practice as practical or vocational nurses in a State or territory of the U.S. or the District of Columbia or must have applied for a license to practice. Applications of candidates possessing a license must be accompanied by a certified or photostatic copy of the license, a notarized statement attesting to the fact, or a citation of the license number and State issuing it. Non-licensed candidates who have completed their training may be appointed subject to obtaining the required license during the probationary period. Those not licensed must furnish the date on which they applied for a license and the jurisdiction involved. No person appointed pending licensure may be retained beyond the probationary period if licensure has not been attained.

Applicants who meet the licensure requirement are considered fully qualified for GS-3.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-620 (continued)

Additional Requirements for Grades GS-4 and Above:

EXPERIENCE

Qualifying experience includes nursing care work in a hospital, outpatient clinic, nursing home, or other supervised medical, nursing, or patient care facility that provided a practical knowledge of human body structure and sterile techniques and procedures, performing such duties as:

- Providing pre- and post-operative patient care.
- Observing, recording, and reporting changes in behavior of mentally ill patients.
- Providing reassurance and encouragement to mentally ill patients.
- Assisting surgeons and registered nurses in operating room activities, including passing instruments, maintaining sterile conditions, and draping and positioning patients.
- Setting up and operating special medical equipment and apparatus.

For GS-4: 6 months of nursing experience is required.

For GS-5 and above: 1 year of nursing experience equivalent to at least the next lower grade level is required.

OR

EDUCATION/TRAINING

For GS-4: Successful completion of a program in practical nursing of at least 9 months' duration combined with 1 year of nursing assistant experience; or successful completion of a 2-year degree program in an accredited community college, junior college, or college or university in practical nursing.

GS-621

Nursing Assistant Series

GS-621

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Qualifying specialized experience includes nonprofessional nursing care work in a hospital, outpatient clinic, nursing home, or other medical, nursing, or patient care facility, or in such work as that of a home health aid performing duties such as:

QUALIFICATION STANDARDS OPERATING MANUAL

GS-621 (continued)

- Providing personal nursing care such as providing pre- and post-operative care.
- Support duties for diagnostic and technical treatment procedures, such as setting up and operating special medical equipment and apparatus.
- Caring for mentally ill patients, including observing, recording, and reporting changes in their behavior, and providing reassurance and encouragement.
- Assisting surgeons and registered nurses in operating room activities, including passing instruments, maintaining sterile conditions, and draping and positioning patients.

OR

Education and Training:

For GS-4: Successful completion of a 2-year degree program in an accredited community college, junior college, or college or university in practical nursing or in a field of study appropriate to the specialization of the position, such as education in a program for a psychology, psychiatric, or operating room technician.

GS-622

Medical Supply Aide and Technician Series

GS-622

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Experience in processing, assembling, troubleshooting, preparing, sterilizing, storing, and issuing sterile and unsterile medical supplies and equipment. The applicant must possess knowledge of the technical names, general uses, physical characteristics, and operating conditions of medical supply items; knowledge of decontamination, cleaning, preparation, sterilization, and storage procedures; knowledge of aseptic techniques; and skill in operating a washer-sterilizer, ultrasonic instrument cleaners, and gas and steam sterilizers. Examples of qualifying specialized experience include work as an operating room technician, medical instrument technician, nursing assistant, corpsman, or laboratory worker.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study that included at least 6 semester hours in courses such as medical supply processing, storage, and distribution; sterile supplies, operating room, and surgical technician courses; or other fields related to the position.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-622 (continued)

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in courses such as those shown above for GS-3.

Successful completion of training provided through schools, hospitals, the military, or employee development programs of at least 20 classroom hours per week may be substituted for specialized experience on a week-for-week basis. Such training must have provided the knowledge and skills required to perform the work of the position, such as those described under specialized experience above.

GS-625

Autopsy Assistant Series

GS-625

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Experience in work such as an autopsy assistant, morgue attendant, surgical assistant, laboratory assistant, or embalmer's assistant that provided a knowledge of human anatomy, skill in identifying or using surgical instruments, and knowledge of aseptic techniques.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study with at least 6 semester hours in courses such as biology, human anatomy, physiology, or zoology that included laboratory work.

Applicants may substitute successfully completed training in the Armed Forces that included the subjects of human anatomy, veterinary anatomy, or physiology for up to 3 months of general experience.

GS-630

Dietitian and Nutritionist Series

GS-630

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: dietetics, food, nutrition, food service management, institution management, or related science.

Dietitian: For dietitian positions, the curriculum must have been in accordance with the qualifying requirements established by The American Dietetic Association (ADA) in effect at the time of graduation. Information on ADA-approved curricula may be obtained from

QUALIFICATION STANDARDS OPERATING MANUAL

GS-630 (continued)

The American Dietetic Association, 430 North Michigan Avenue, Chicago, Illinois 60611. (Professional registration as a registered dietitian (R.D.) is evidence of meeting ADA requirements.)

Completion of a coordinated undergraduate program, internship, or other clinical component approved by The American Dietetic Association that was conducted as part of the undergraduate program, or after completion of the basic requirements for a baccalaureate degree, is qualifying at grade GS-7 for dietitians or nutritionists.

Applicants possessing professional registration as a Registered Dietitian meet the requirements for GS-7.

GS-631

Occupational Therapist Series

GS-631

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: Applicants must have completed successfully (1) an occupational therapy curriculum approved by the American Occupational Therapy Association at the time the curriculum was completed, and (2) the clinical affiliation requirements prescribed by the school. The curriculum may have been a bachelor's degree program, a post-baccalaureate certificate program, or an entry-level master's degree program.

Note: Applicants who have graduated from an approved curriculum at either the baccalaureate or post-baccalaureate certificate level and who subsequently completed a substantial program of clinical practice to practice in the occupation may be rated eligible for GS-6, rather than GS-5.

GS-633

Physical Therapist Series

GS-633

Use these individual occupational requirements in conjunction with the "Group coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: that included or was supplemented by (1) a physical therapy curriculum approved by a recognized professional accrediting organization at the time the curriculum was completed, and (2) the clinical affiliation requirements prescribed by the school.

Licensure: Applicants must pass a State-administered national examination.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-633 (continued)

Note: Applicants who have completed an approved curriculum at either the baccalaureate or post-baccalaureate certificate level and who subsequently completed a substantial program of clinical practice to practice in the occupation may be rated eligible for GS-6, rather than GS-5.

GS-635

Corrective Therapist Series

GS-635

Use these individual occupational requirements in conjunction with the "Group overage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: corrective therapy, physical education, or physical therapy.

Note: Applicants who have graduated from an approved curriculum and who subsequently completed a substantial program of clinical practice, e.g., 10 weeks, planned to assure professional competence to practice in the occupation may be rated eligible for GS-6, rather than GS-5.

Evaluation of Clinical Practice: Clinical practice presently consists of a minimum of 400 clock hours of supervised experience in a Department of Veterans Affairs clinical training program, or in an equivalent training program in a clinical setting under a physician.

GS-636

Rehabilitation Therapy Assistant Series

GS-636

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Examples of qualifying specialized experience include work as an assistant to one of the specialized therapies such as occupational, physical, manual arts, corrective, or educational therapy; or experience gained as an assistant or aid in patient care, social work, or psychology where the duties involved actual participation in physical medicine and activities of a hospital or clinic.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study.

For GS-4: Successful completion of 2 years of study in a program directly related to the specialized field of therapy.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-637

Manual Arts Therapist Series

GS-637

Use these individual occupational requirements in conjunction with the "Group average Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: industrial arts technology, industrial education, manual arts therapy, vocational rehabilitation/counseling/work adjustment/evaluation.

Note: Applicants who have graduated from an approved curriculum and who subsequently completed a substantial, e.g., 3 months, program of clinical practice planned to assure professional competence to practice in the occupation may be rated eligible for GS-6, rather than GS-5.

GS-638

Recreation/Creative Arts Therapist Series

GS-638

Use these individual occupational requirements in conjunction with the "Group average Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: recreation therapy or in a creative arts therapy field (art therapy, dance therapy, music therapy, or psychodrama); or a major in an appropriate subject-matter field with therapeutic emphasis or concentration.

Note: Applicants who have graduated from an approved curriculum in recreational therapy or in a field directly applicable to the specialized creative arts therapy, and who have completed (as part of the degree and/or subsequently) a program of 6 months' (1040 clock hours) clinical practice/practicum planned to assure professional competence in the particular therapy specialty may be rated eligible for grade GS-6. A degree-related program of clinical practice/practicum involves, as a general rule, a period of 240 clock hours (6 weeks) pre-clinical training in the sophomore year, followed by up to 400 clock hours (10 weeks) of clinical practice/practicum in the junior and/or senior years. This 400 clock hours of degree-related practicum may be applied against the 6 months' clinical practice required for GS-6 eligibility. For example, when an applicant holds a degree that included 400 clock hours of practicum, a postgraduate program of clinical practice of 640 clock hours provides the combined total of 1040 clock hours required to qualify for positions at grade GS-6.

Evaluation of Experience: Experience in activities or programs that did not require application of a knowledge of the concepts, principles, and practices of recreational therapy or one of the creative arts therapy specializations covered by this standard, and that did not involve the use of therapeutic approaches to maintain the physical and/or mental health or to achieve the physical and/or mental rehabilitation of persons, (e.g., Outdoor Recreation Specialist, Commercial Recreation Leader, Vocational Counselor, or other diversionary-type recreation specialist positions) is not qualifying for this series.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-640

Health Aid and Technician Series

GS-640

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Positions in this series range widely in type and include support duties to medical or health personnel such as audiologists, speech pathologists, medical officers, and optometrists. Therefore, technician experience is experience that required application of the knowledge, methods, and techniques of the position to be filled.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study that included study in medical, health, or related fields.

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in subjects related to the position.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree, with major study or at least 24 semester hours in subjects directly related to the position.

GS-644

Medical Technologist Series

GS-644

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Basic Requirements:

- A. Degree: medical technology, chemistry, or biology that included or was supplemented by at least:
- 16 semester hours of biological science of which one course was in microbiology and one course was in immunology. (NOTE: If there is no mention of immunology or immunobiology in the course title, the requirement for a course in immunology may be met by any course that covers the following title areas: (1) definition and relationships of antigens and antibodies; (2) host-antigen interactions; (3) bursal and thymic influences on lymphoid cells; and (4) humoral and cellular response mechanisms.) The remaining biology courses must have been in general biology, zoology, or any of the areas listed below under "Evaluation of Education and Experience;"

QUALIFICATION STANDARDS OPERATING MANUAL

GS-644 (continued)

- 16 semester hours of chemistry of which one course was in organic or biochemistry. The remaining chemistry course must have been in general chemistry, qualitative analysis, qualitative chemistry, quantitative chemistry, physical chemistry, analytical chemistry, or any of the areas listed below under "Evaluation of Education and Experience;" and
- 3 semester hours of college mathematics.

OR

- B. A full 4 year course of study that included or was supplemented by at least 12 months in a college or hospital-based medical technology program or medical technology school approved by a recognized accrediting organization. The professional medical technology curriculum may have consisted of a 1-year post-baccalaureate certificate program or the last 1 or 2 years of a 4-year program of study culminating in a bachelor's in medical technology.

OR

- C. A combination of (1) at least 35 semester hours of biological science, chemistry, and mathematics as described in paragraph A above and (2) additional appropriate education and/or experience totaling 4 years. This combination of education and experience must have provided knowledge of the theories, principles, and practices of medical technology equivalent to that provided by the full 4-year course of study described in A or B above. All science and mathematics courses must have been acceptable for credit toward meeting the requirements for a science major at an accredited college acceptable for credit toward meeting the requirements for a science major at an accredited college or university. Acceptable experience is responsible professional or technician experience in a hospital laboratory, health agency, industrial medical laboratory, or pharmaceutical house; or teaching, test development, or medical research program experience that provided an understanding of the methods and techniques applied in performing professional clinical laboratory work. Certification/licensure as a medical technologist (generalist) obtained through written examination by a nationally recognized credentialing agency or State licensing body is a good indication that the quality of experience is acceptable.

Candidates for positions involving highly technical research, development, or similarly complex scientific functions must have completed the full 4-year course of study described in A or B above.

Evaluation of Education and Experience: The four major areas of clinical laboratory science are microbiology, clinical chemistry, hematology, and immunochemistry (blood banking). Qualifying course work in these areas includes bacteriology, mycology, mycobacteriology, tissue culture, virology, parasitology, immunology, serology, immunoserology, immunodeficiency, hemolysis, histocompatibility, cytogenetics, and similar disciplines or areas of laboratory practice.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-644 (continued)

Related fields include physiology, anatomy, molecular biology, cell biology, embryology, pathology, genetics, pharmacology, histology, cytology, nuclear medicine, epidemiology, biostatistics, infection control, physics, statistics, and similar areas of science *where the work is directly to the position to be filled.*

For position above GS-5, experience or graduate education must have been in (1) the general field of medical technology, (2) one of the disciplines or specialized areas of medical technology, or (3) a field directly related and applicable to medical technology or the position to be filled.

Work study experience in a clinical laboratory as a study medical technologist in a CAHEA-accredited education program may be credited on a month-for-month basis toward meeting the GS-7 specialized experience requirement. (NOTE: A typical program comprises 12 consecutive months of professional study, including didactic and practical instruction. Approximately 6 or 7 months are devoted to lectures, laboratory study, demonstrations, and seminars covering theory and technique in clinical laboratory science. The other 5 to 6 months are devoted to clinical laboratory rotations. It is the latter, i.e., the period(s) of supervised work experience in a service laboratory that may be credited as work study experience.

GS-646

Pathology Technician Series

GS-646

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Anatomical pathology technician work in (a) cutting and staining very thin sections of human tissue specimens for microscopic examination; and/or in (b) testing and examining body fluids, etc. for abnormalities in cell structure, depending upon the requirements of the position to be filled.

OR

Education and Training:

For GS-3: Successful completion of (a) a full-time training course of approximately a year's duration in a medical or clinical laboratory assistant (or technician) school that included instruction in chemistry, hematology, blood banking, and microbiology (including serology) and that, in addition, included supervised laboratory practice incident to the diagnostic process and the treatment of patients; or (b) 1 year of study that included at least 6 semester hours in chemistry and/or biological science.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-646 (continued)

For GS-4: Successful completion of (a) an associate-degree course of study of which the 2nd year of the 2-year program included successful completion of a training course of approximately a year's duration in a certified laboratory assistant school approved by a nationally recognized accrediting agency; (b) 1 year of study that included 6 semester hours in chemistry and/or the biological sciences, plus successful completion of the training course as described in (a) above for GS-3; or (c) 2 years of study that included at least 12 semester hours of chemistry and/or biological science course work that must have been directly related to the specialization of the position to be filled.

For GS-5: (a) Successful completion of a full 4-year course of study leading to a bachelor's degree with major study or at least 24 semester hours in subjects appropriate to the position to be filled; or (b) successful completion of 2 academic years of study that included at least 24 semester hours in chemistry and/or in appropriate fields of biological science and successful completion of a 12-month program of education, training, and supervised experience in cytotechnology or histopathology that has been approved by a nationally recognized accrediting agency.

GS-647

Diagnostic Radiologic Technologist Series

GS-647

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

NOTE: Public Law 97-35 requires that persons who administer radiologic procedures meet the credentialing standards in 42 CFR Part 75. Essentially, they must (1) have successfully completed an educational program that meets or exceeds the standards described in that regulation, and is accredited by an organization recognized by the Department of Education, and (2) be certified as radiographers in their field. The following meet these requirements:

- (1) Persons employed by the Federal Government as radiologic personnel prior to the effective date of the regulation (January 13, 1986) who show evidence of current or fully satisfactory performance or certification of such from a licensed practitioner such as a doctor of medicine, osteopathy, dentistry, podiatry, or chiropractic who prescribes radiologic procedures to others.
- (2) Persons first employed by the Federal Government as radiologic personnel after the effective date of the regulation who (a) received training from institutions in a State or foreign jurisdiction that did not accredit training in that particular field at the time of graduation, or (b) practiced in a State or foreign jurisdiction that did not license that particular field or did not allow special eligibility to take a licensure examination for those who did not graduate from an accredited educational program, provided that such persons show evidence of training, experience, and competence as determined by the SPOs.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-647 (continued)

All applicants, however, must meet the requirements below.

Specialized Experience (for positions at GS-4 and above): Experience in the operation of diagnostic radiology equipment under the direction of radiologists or other medical officers to produce radiographic studies used in medical diagnosis and treatment.

OR

Education and Training: Qualifying educational programs for radiography and radiation therapy technology are available in accredited colleges, universities, hospitals, medical schools, or postsecondary technical or vocational schools. Education or training from programs based in hospitals must have been from those hospitals that were accredited at the time of the education or training by the Joint Commission on Accreditation of Hospitals or by the American Osteopathic Association.

For GS-3: Successful completion of (a) 1 year of study with at least 6 semester hours in any combination of the following: anatomy, biology, mathematics, chemistry, radiation physics, physiology, pathology, medical terminology, or related courses, or (b) a course for medical technicians, hospital corpsmen, medical service specialists, or hospital training obtained in a training program given by the Armed Forces or the U.S. Maritime Service under close medical and professional supervision.

For GS-4: Successful completion of a full-time training course of at least 12 months' duration in a post-high school radiography program.

For GS-5: Successful completion of a full-time training course of at least 24 months' duration in a post-high school radiography program.

Successful completion of a course for medical radiologic technicians in the Armed Forces is qualifying on a month-for-month basis up to the 1 year of specialized experience required for GS-5.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-648

Therapeutic Radiologic Technologist Series

GS-648

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

NOTE: Public Law 97-35 requires that persons who administer radiologic procedures meet the credentialing standards in 42 CFR Part 75. Essentially, they must (1) have successfully completed an educational program that meets or exceeds the standards described in that regulation, and is accredited by an organization recognized by the Department of Education, and (2) be certified as radiographers in their field. The following meet these requirements:

- (1) Persons employed by the Federal Government as radiologic personnel prior to the effective date of the regulation (January 13, 1986) who show evidence of current or fully satisfactory performance or certification of such from a licensed practitioner such as a doctor of medicine, osteopathy, dentistry, podiatry, or chiropractic who prescribes radiologic procedures to others.
- (2) Persons first employed by the Federal Government as radiologic personnel after the effective date of the regulation who (a) received training from institutions in a State or foreign jurisdiction that did not accredit training in that particular field at the time of graduation, or (b) practiced in a State or foreign jurisdiction that did not license that particular field or did not allow special eligibility to take a licensure examination for those who did not graduate from an accredited educational program, provided that such persons show evidence of training, experience, and competence as determined by the SPOs.

All applicants, however, must meet the requirements below.

Specialized Experience (for positions at GS-4 and above): Experience in the operation of therapeutic radiology equipment under the direction of radiotherapists or other medical officers.

OR

Education and Training: Qualifying educational programs for radiography and radiation therapy technology are available in accredited colleges, universities, hospitals, medical schools, or postsecondary technical or vocational schools. Education or training from programs based in hospitals must have been from those hospitals that were accredited at the time of the education or training by the Joint Commission on Accreditation of Hospitals or by the American Osteopathic Association.

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GS-648 (continued)

For GS-3: Successful completion of (a) 1 year of study with at least 6 semester hours in any combination of the following: anatomy, biology, mathematics, chemistry, radiation physics, physiology, pathology, medical terminology, or related courses, or (b) a course for medical technicians, hospital corpsmen, medical service specialists, or hospital training obtained in a training program given by the Armed Forces or the U.S. Maritime Service under close medical and professional supervision.

For GS-4: Successful completion of a full-time training course of at least 12 months' duration in a post-high school radiation therapy technology program.

For GS-5: Successful completion of the following type of education or training qualifies for the GS-5 level: (a) a full-time training course in radiation therapy technology of at least 24 months' duration in a post-high school program (may be a 2-year junior college or a 2-year certificate program); or (b) a full-time course of study in radiation therapy technology of at least 12 months' duration in a post-high school program. (Applicants qualifying under (b) must have entered the 1-year certificate program upon completion of a radiography program, a registered nurse program, or upon completion of equivalent course work or training that was accepted as a prerequisite for entry into the radiation therapy technology program); or (c) a 4-year baccalaureate degree program in radiologic technology.

Successful completion of a course for therapeutic radiologic technicians in the Armed Forces is qualifying on a month-for-month basis up to the 1 year of specialized experience required for GS-5.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-649

Medical Instrument Technician Series

GS-649

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Experience in operating, supervising the operation of, or instructing in the operation of equipment related to the particular specialization for which application is made. Experience gained in the operation of equipment in a specialization directly related to the specialization may be credited through the GS-5 level.

Experience gained in the operation of equipment for animal diagnosis or treatment may be credited as specialized experience for that particular specialization through the GS-5 level.

Education and Training:

For GS-3: Successful completion of (a) an approved program in practical nursing or in operating room or surgical technician work of at least 9 months in length, or (b) 1 year of study with at least 6 semester hours in any combination of scientific subjects such as biology, anatomy, physiology, chemistry, medical technology, or physics.

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in any combination of subjects such as those listed for GS-3. At least 6 of the 12 semester hours of the courses must have been directly related to the specialization of the position.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree in a major field of study appropriate to the specialization of the position, or that included at least 24 semester hours in courses such as those listed for GS-3. Of the 24 semester hours, at least 12 must have been in a field directly related to the specialization of the position.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-651

Respiratory Therapist Series

GS-651

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Qualifying specialized experience must have demonstrated a knowledge of basic equipment used in respiratory therapy and included duties such as:

- Making regular rounds on hospital nursing units to review or collect clinical data to insure that the respiratory equipment is operating properly and in compliance with physicians' orders.
- Transporting, setting up, or testing the operation of and changing simple oxygen administering devices, e.g., masks and nasal cannulas with cylinder or centralized medical gas systems.
- Disassembling, cleaning, assembling, and sterilizing reusable respiratory equipment such as oxygen analyzers and regulators, including recognizing and reporting variations from expected results.

Examples of qualifying experience include work as a practical nurse, nursing assistant, medical machine aid, medical technician, or respiratory therapy aid if the above duties were performed.

Education and Training:

For GS-4: Successful completion of a 2-year accredited course of study leading to an associate's degree in respiratory therapy.

OR

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree in respiratory therapy.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-660

Pharmacist Series

GS-660

This is an individual qualification standard.

Basic Requirements:

Education: Four-year bachelor's degree in pharmacy recognized by the American Council on Pharmaceutical Education.

Licensure: Except for research positions that do not entail patient care, all applicants must be licensed to practice pharmacy in a State, territory of the U.S., or the District of Columbia.

Applicants who meet the basic requirements qualify for GS-7.

Additional Requirements for Grades GS-9 and Above:

For GS-9: Successful completion of a 5-year course of study leading to a bachelor's or higher degree in pharmacy from an approved pharmacy school, or 1 year of professional pharmacy experience equivalent to at least GS-7.

For GS-11: Successful completion of a 6-year course of study leading to a Doctor of Pharmacy (Pharm.D.) degree; 1 year of professional pharmacy experience equivalent to at least GS-9; or, for research positions, completion of all of the requirements for a master's or equivalent degree in a related scientific field.

For GS-12: One year of professional pharmacy experience equivalent to at least GS-11; or, for research positions, completion of all the requirements for a Ph.D. or equivalent degree in a related scientific field.

For GS-13 and above: One year of professional pharmacy experience equivalent to at least the next lower grade level.

MEDICAL REQUIREMENTS

Applicants must be able to distinguish basic colors.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-661

Pharmacy Technician Series

GS-661

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Qualifying specialized experience may have been gained in hospital pharmacies, retail pharmacies, or in pharmaceutical firms or laboratories. Experience must have provided a basic knowledge of:

- Pharmaceutical nomenclature;
- Characteristics, strengths, and dosage forms of pharmaceuticals;
- Pharmaceutical systems of weights and measures; and the
- Variety of procedures and techniques involved in the care, storage, repackaging, bulk compounding, and distribution of pharmaceuticals.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study that included a course in biology, chemistry, or physics.

For GS-4: Successful completion of 2 years of study in pharmacy or pharmacy technology that included at least 12 semester hours in courses in the care, storage, distribution, and preparation of pharmaceuticals, and appropriate laboratory work.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree with major study in pharmacy, or that included at least 24 semester hours in pharmacy-related courses.

Successful completion of a course for medical technicians, hospital corpsmen, medical service specialists, or hospital training obtained in a training program given by the Armed Forces or the U.S. Maritime Service under close medical and professional supervision is creditable on a month-for-month basis for general experience.

Successful completion of pertinent specialized training courses in pharmaceutical and pharmacy practices while serving in the Armed Forces is creditable on a month-for-month basis up to the 1 year of specialized experience required for GS-5.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-662

Optometrist Series

GS-662

This is an individual qualification standard.

Basic Requirements:

Degree: Doctor of Optometry (O.D.) accredited by the Council on Optometric Education.

Licensure: Current license to practice optometry in a State, the District of Columbia, or a territory is required, except for those research positions that do not entail patient care responsibilities.

Applicants who meet the basic requirements qualify for GS-9.

Additional Requirements for Grades GS-11 and Above:

For GS-11: One year of professional optometrist experience equivalent to at least GS-9 that demonstrated the ability to perform the work of the position to be filled. For example, for industrial optometrists, the applicant's experience must have demonstrated skill in developing or applying methods, procedures, or devices for protection of employees engaged in eye-hazardous work.

OR

For research positions, completion of all the requirements for a master's or equivalent degree in a related scientific field such as physics, biology, physiological optics, etc.

For GS-12: One year of professional optometrist experience equivalent to at least GS-11 that demonstrated the ability to perform the work of the position to be filled. For example, for industrial optometrists, the applicant's experience must have demonstrated skill in administering an industrial optometry program in an industrial activity requiring the development of new methods, procedures, or devices for protection employees engaged in eye-hazardous work.

OR

For research positions, completion of all the requirements for a Ph.D. or equivalent degree in a related field such as those described above for GS-11.

For GS-13 and above: One year of professional optometrist experience equivalent to at least the next lower grade level.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-665

Speech Pathology and Audiology Series

GS-665

Use these individual /occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: For speech pathologist positions, master's degree that included 18 semester hours in the field of speech pathology with approved clinical practice. For audiologist positions, master's degree that included 18 semester hours in the field of audiology with approved clinical practice. Applicants for positions with both speech pathologist and audiologist duties must have successfully completed all the requirements for a master's degree with 18 semester hours in one of the fields with approved clinical practice and, in addition, must have either completed a minor in the other field or must have had at least 1 year of professional experience in the other field.

Applicants who meet the basic requirements fully qualify for GS-9.

Evaluation of Experience: Experience must have demonstrated breadth and level of knowledge of the principles and theories of speech pathology and/or audiology; skill in analyzing and interpreting test results in the evaluation of communicative disorders; ability to plan and conduct a program of therapy independently; ability to communicate effectively, orally and in writing; and ability to establish and maintain effective relationships with individuals and groups in evaluating and resolving problems in hearing, voice, language, or speech. Applicants for the speech pathologist/audiologist combined positions must have had sufficient professional experience in both speech pathology and audiology to demonstrate their competence to perform the duties involved. The following are examples of qualifying professional experience that may have been obtained in a hospital, special treatment center for the disabled, university or community clinic, or industrial or educational institution:

- Investigating and studying the underlying causes, precipitating factors, symptomatic behavior, and the emotional and practical effect upon the patient of a particular impaired speech pattern; resolving speech impairments; and counseling patients and/or families in the adjustment to the speech impairment (for speech pathologist positions).
- Assessing, evaluating, analyzing, and treating communicative handicaps resulting from hearing impairments (for audiologist positions).
- Investigating methods to improve the clinical management of communicative disorders and to increase the basic scientific understanding of communicative processes and other factors causing their disruption.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-665 (continued)

- Providing instruction in the principles and bases of communication including clinical techniques and methods of assessment, evaluation, and treatment to audiologists, speech pathologists, and specialists in related fields (such as medical residents in otolaryngology).
- Teaching audiology or speech pathology at the graduate level.

GS-667

Orthotist and Prosthetist Series

GS-667

This is an individual qualification standard.

EXPERIENCE AND EDUCATION/TRAINING REQUIREMENTS

Qualifying experience and training may have been acquired in automotive, electronic, furniture, garment, or woodworking shops or factories, in a hospital or clinical setting, or in the Armed Forces as a medic or mechanic. All applicants must have the ability to:

- Deal with patients' orthotic or prosthetic needs while recognizing their emotional and mental outlook and attitudes;
- Accept responsibility as participating members of the health care team, be aware of the ethical considerations present and the need to adhere to medical ethical practices in all their relationships; and
- Work with professionals and nonprofessionals, and recognize the contributions of each in attaining the objectives of the treatment plan prescribed by a physician or developed by a clinical team.

EXPERIENCE

For GS-3: Applicants must have 1 year of experience that provided (1) knowledge of or skill in the use of hand or power tools, or of wood, plastics, metal, leather, or other materials used in orthotic or prosthetic devices; or (2) a practical knowledge of the medical environment and procedures related to the care of patients through work such as nursing assistant, therapy assistant, or medical aid.

For GS-4: Applicants must have 1 year of experience that provided familiarity with orthotic or prosthetic work, or skill and knowledge in the use of hand and power tools in working with materials used in orthotic or prosthetic devices.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-667 (continued)

For GS-5 and above: Applicants must have 1 year of experience equivalent to at least the next lower grade level that provided a solid background of:

- The theories and principles of orthotics or prosthetics;
- The use of hand and power tools for the development or fabrication of orthotic or prosthetic devices and appliances;
- The technology of materials commonly used in orthotic or prosthetic appliances; and
- The measurement of patients, the fabrication and fitting of orthotics or prostheses from prescriptions according to recognized and accepted techniques.

EDUCATION/TRAINING

For GS-3: Successful completion of 1 academic year of post-high school study that included a course appropriate to the work such as orthotics, prosthetics, anatomy, psychology, nursing, biology, medical terminology, handicrafts, physical education, or industrial arts education.

For GS-4: Successful completion of 2 academic years of post-high school study that included courses as described above for GS-3.

Successful completion of apprenticeship training in such trades and crafts as plastics and sheet metal work, machinist, patternmaker, or similar trades and crafts that provided knowledge of the practices, procedures, techniques, and use of the equipment and tools meets the educational requirements on a year-for-year basis up through GS-4.

For GS-5: A full 4-year course of study at an accredited college or university leading to a bachelor's degree with major study in prosthetics and orthotics.

For GS-6: A full 4-year course of study at an accredited college or university leading to a bachelor's degree with major study in prosthetics and orthotics, and subsequent successful completion of the clinical affiliation training prescribed by the school to assure professional competence to practice the occupation.

A successfully completed Orthotist-Prosthetist apprenticeship in a facility approved by the American Board for Certification in Orthotics and Prosthetics, Inc. meets in full the requirements for grade GS-6 positions.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-668

Podiatrist Series

GS-668

This is an individual qualification standard.

Basic Requirements:

Degree: Doctor of Podiatric Medicine (D.P.M.) from a school of podiatric medicine accredited by the Council on Podiatric Medical Evaluation in the year in which the degree was granted.

Licensure: Applicants must be currently licensed to practice podiatric medicine in one of the States, the District of Columbia, or Puerto Rico.

Applicants who meet the basic requirements qualify for GS-11.

Additional Requirements for Grades GS-12 and Above:

In addition to meeting the basic requirements, applicants must have 1 year of experience equivalent to at least the next lower grade level in the practice of podiatry in an office, clinic, or hospital.

For GS-12 positions, 1 year of post-graduate training in a school-affiliated podiatrist's office (preceptorship) or residency is qualifying.

OR

For GS-13 positions, 2 years of post-graduate training in a school-affiliated podiatrist's office (preceptorship) or residency is qualifying.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-669

Medical Records Administration Series

GS-669

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

Education: Successfully completed training in an approved school for medical records technicians equates to 1 year of general experience. No credit may be given for partial completion of such training.

Successful completion of a bachelor's degree in a medical records administration educational program accredited by the American Health Information Management Association (AHIMA) and the American Medical Association's Committee on Allied Health Education and Accreditation (CAHEA) meets the requirements for GS-5 positions.

Successful completion of the requirements for a bachelor's degree (in any field) and 1 year in a medical records administration educational program accredited by AHIMA and CAHEA meets the requirements for GS-7.

OR

General Experience (for GS-5 positions): Experience in the preparation, maintenance, and management of medical records and health information systems that provided a knowledge of medical terminology, medical records procedures, and medical, administrative, and legal requirements of health care delivery systems.

Specialized Experience (for positions above GS-5): Examples of qualifying specialized experience include:

- Planning, developing, and directing a medical records program for a health care facility that meets both institutional goals and standards of accrediting agencies.
- Evaluating and analyzing the organization and operation of medical records services, including medical records and indexes, and recommending and/or implementing appropriate revisions and modifications.
- Assisting medical and administrative staff in evaluating the quality and appropriateness of patient and health care services.
- Designing information systems to collect, analyze, monitor, report, and maintain privacy and confidentiality of patient and institutional data for health care related programs, and evaluating and implementing changes to assure the reliability of data.
- Developing and implementing policies and procedures for processing legal medical documents and insurance and correspondence requests in accordance with Federal, State, and local statutes.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-670

Health Systems Administration Series

GS-670

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

Undergraduate and Graduate Education: Major study--hospital administration, public health administration, or related fields such as business or public administration with course work in health care administration.

OR

General Experience (for GS-5 positions): Work that required a knowledge of the basic principles and practices related to the management of a health care delivery system. Such experience may have been gained as an administrative officer, management analyst, or administrative or clinical program manager or supervisor in a health care delivery system.

Specialized Experience (for positions above GS-5): Progressively responsible analytical or administrative, or clinical management or supervisory experience in the health care field. This work may have been performed in an operating health care facility or a higher organizational echelon with advisory or directional authority over such facilities. Work must have involved a close working relationship with facility managers and analysis and/or coordination of administrative, clinical, or other service activities, and provided knowledge of the following:

- Missions, organizations, programs, and requirements of health care delivery systems;
- Regulations and standards of various regulatory and credentialing groups; and
- Government-wide, agency, and facility systems and requirements in various administrative areas such as budget, personnel, and procurement.

Applicants must also possess:

- Management ability to delegate authority, evaluate and oversee people and programs, recognize and adapt to changing priorities; and
- Knowledge of the interrelationships and interdependencies among various medical and administrative services and programs.

Special Provision for Inservice Placement: Successful completion of an agency-sponsored on-the-job training program may be substituted for qualifying experience, provided it included a formal individualized training plan. Such a training program must have been conducted in an operating health care system and included:

- Assignments providing a knowledge of basic health system administration philosophies, practices, and procedures, and basic government administrative policies and requirements;

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-670 (continued)

- Practical assignments providing an opportunity to apply health system administration skills and principles (as the individual progresses, work assignments must be characteristic of the grade level to which he or she is assigned); and
- Oversight by an experienced health system administrator with periodic evaluation of the individual's progress and appropriate adjustment of the training program.

GS-671

Health System Specialist Series

GS-671

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

Undergraduate and Graduate Education: Major study--hospital administration, public health administration, or related fields such as business or public administration with course work in health care administration.

OR

General Experience (for GS-5 positions): Work that required a knowledge of the basic principles and practices related to the management of a health care delivery system. Such experience may have been gained as an administrative officer, management analyst, or administrative or clinical program manager or supervisor in a health care delivery system.

Specialized Experience (for positions above GS-5): Progressively responsible analytical or administrative, or clinical management or supervisory experience in the health care field. This work may have been performed in an operating health care facility or a higher organizational echelon with advisory or directional authority over such facilities. Work must have involved a close working relationship with facility managers and analysis and/or coordination of administrative, clinical, or other service activities, and provided knowledge of the following:

- Missions, organizations, programs, and requirements of health care delivery systems;
- Regulations and standards of various regulatory and credentialing groups; and
- Government-wide, agency, and facility systems and requirements in various administrative areas such as budget, personnel, and procurement.

Applicants must also possess:

- Management ability to delegate authority, evaluate and oversee people and programs, recognize and adapt to changing priorities; and

QUALIFICATION STANDARDS OPERATING MANUAL

GS-671 (continued)

- Knowledge of the interrelationships and interdependencies among various medical and administrative services and programs.

Special Provision for Inservice Placement: Successful completion of an agency-sponsored on-the-job training program may be substituted for qualifying experience, provided it included a formal individualized training plan. Such a training program must have been conducted in an operating health care system and included:

- Assignments providing a knowledge of basic health system administration philosophies, practices, and procedures, and basic government administrative policies and requirements;
- Practical assignments providing an opportunity to apply health system administration skills and principles (as the individual progresses, work assignments must be characteristic of the grade level to which he or she is assigned); and
- Oversight by an experienced health system administrator with periodic evaluation of the individual's progress and appropriate adjustment of the training program.

GS-673

Hospital Housekeeping Management Series

GS-673

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

Undergraduate Education: Major study--chemistry or biological sciences, sanitary science or administration, institutional sanitation or administration, hospital administration, hotel administration, public administration, business administration, or other fields related to the position.

Graduate Education: Major study--public health or business administration with emphasis in hospital administration.

OR

General Experience (for GS-5 positions): Examples of qualifying general experience include:

- Work that provided a practical knowledge of supervision and management.
- General administrative work in institutional or building maintenance with responsibility for employing and directing a housekeeping, laundry, or maintenance force; and responsibility for planning work schedules on both a short- and long-term basis.
- Performance of administrative duties that included estimating budget requirements, planning expenditures of funds, estimating materials and equipment needs, supervising employees, and recommending personnel actions.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-673 (continued)

- Teacher in a formal course of instruction related to supervision or management.
- Work that provided a practical knowledge of methods by which bacteria and viruses are spread and of preventive and control measures.

Specialized Experience (for positions above GS-5): Experience in two or more of the following areas, or other work related to the position to be filled:

- Experience that demonstrated a practical working knowledge of the basic principles of chemistry, biology, and bacteriology as applied to environmental sanitation, infection control, and to the choice and use of antimicrobial agents in the disinfection, sanitization, and/or sterilization of surfaces and equipment.
- Experience in laundry and linen management.
- Experience in interior design management.
- Experience that demonstrated a knowledge of waste management, including the requirements relating to hazardous, toxic, and infectious wastes and provisions for their final disposition.
- Experience that demonstrated a knowledge of pest management, including alternative methods of control and the selection and application of chemicals.

Other: One year of formalized hospital administrative residency or internship in hospital administration or hospital housekeeping management is equivalent to 1 year of GS-5 level specialized experience.

GS-675

Medical Records Technician Series

GS-675

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-679

Medical Clerk Series

GS-679

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

QUALIFICATION STANDARDS OPERATING MANUAL

GS-680

Dental Officer Series

GS-680

This is an individual qualification standard.

Basic Requirements:

Education: Degree in dental surgery (D.D.S.) or dental medicine (D.M.D.) from a school approved by the Council on Dental Education, American Dental Association (ADA); or other dental school, provided the education and knowledge acquired was substantially equivalent to that of graduates from an ADA-approved school.

Licensure: Applicants must be currently licensed to practice dentistry in a State, the District of Columbia, or Puerto Rico.

Applicants who meet the basic requirements qualify for GS-11.

Additional Requirements for Grades GS-12 and Above:

For purposes of this standard, the following terms are defined.

- Approved internship; approved residency--Training in a hospital dental internship or residency approved by the Council on Dental Education of the ADA.
- Graduate-level study--Either dental graduate study leading to an advanced degree such as Master of Science, or postgraduate (nondegree) dental school study involving a level of instruction comparable to that provided in a graduated degree program.
- National certifying board--An examining board in a special area of dental practice recognized by the Council on Dental Education of the ADA.
- Board eligibility--Qualification for examination by a national certifying board as a result of having met the advanced training program requirements for a dental specialty.

Experience and/or training must be one of the following types:

- Post-licensure professional experience in the general practice of dentistry.
- Approved internship or residency training.
- Graduate-level study in an accredited dental school.
- Post-licensure professional experience in a specialized area of practice.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-680 (continued)

- Other advanced study or training (outside a dental school or hospital) creditable towards satisfaction of training program requirements for Board eligibility.

For specialist positions, experience and/or training must clearly establish the applicant's status as a specialist. Applicant's experience should be reviewed to determine the types and difficulty of the cases dealt with, the level of knowledge and understanding of the specialization regularly required, the degree of diagnostic skills and treatment planning ability involved, and the pertinent graduate study acquired.

For GS-12: Two years of professional dentistry experience and/or training; or superior academic ability defined as that demonstrated by an intern, who on the basis of an evaluation of all interns who have completed training in the same hospital or in the same kind of internship program over the past 5 years, would fall into the upper half of the group.

For GS-13: Three years of professional dentistry experience and/or training equivalent to at least that of a Board eligible.

For GS-14: One year of professional dentistry experience equivalent to at least the GS-13 grade level. For specialist positions, certification as a diplomate by a national certifying board for a specialized area of practice meets the requirements.

For GS-15: One year of professional dentistry experience equivalent to at least the GS-14 level.

MEDICAL REQUIREMENTS

Applicants must be able to distinguish shades of color.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-681

Dental Assistant Series

GS-681

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

NOTE: Public Law 97-35 requires that persons who administer radiologic procedures meet the credentialing standards in 42 CFR Part 75. Essentially, they must (1) have successfully completed an educational program that meets or exceeds the standards described in that regulation, and is accredited by an organization recognized by the Department of Education, and (2) be certified as radiographers in their field. The following meet these requirements:

- (1) Persons employed by the Federal Government as radiologic personnel prior to the effective date of the regulation (January 13, 1986) who show evidence of current or fully satisfactory performance or certification of such from a licensed practitioner such as a doctor of medicine, osteopathy, dentistry, podiatry, or chiropractic who prescribes radiologic procedures to others.
- (2) Persons first employed by the Federal Government as radiologic personnel after the effective date of the regulation who (a) received training from institutions in a State or foreign jurisdiction that did not accredit training in that particular field at the time of graduation, or (b) practiced in a State or foreign jurisdiction that did not license that particular field or did not allow special eligibility to take a licensure examination for those who did not graduate from an accredited educational program, provided that such persons show evidence of training, experience, and competence as determined by the IHS.

All applicants, however, must meet the requirements below.

Specialized Experience (for positions at GS-4 and above): Experience in dental assistance to general or specialized dentistry, dental assistant (expanded function) work, or any combination of these appropriate to the position being filled.

OR

Education and Training:

For GS-3: Successful completion of (a) a 1-year dental assistant program or completion of 1 year of a dental hygiene program accredited by the ADAs Commission on Accreditation that included a course in radiation physics; radiation biology; radiation health, safety, and protection; X-ray films and radiographic film quality, radiographic techniques; darkroom and processing techniques; and film mounting; or (b) practical nurse training approved by the appropriate State, territory, or District of Columbia accrediting body.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-681 (continued)

For GS-4: Successful completion of a 2-year dental assistant program or completion of a 2-year dental hygiene program accredited by the ADAs Commission on Accreditation that included at least 12 semester hours of courses such as those shown above for GS-3.

For GS-5: Successful completion of a full 4-year course of study in a dental assistant or dental hygiene program that included at least 24 semester hours in courses as shown above for GS-3.

Special Requirements for GS-5 and above Dental Assistant (Expanded Function): Applicants for Dental Assistant (Expanded Function) positions must have completed 1 year of acceptable course work, preceptorship, or other formal training and/or work assignments specifically designed to equip them with knowledge and skills required to perform intra-oral procedures involved in the position to be filled. Examples of acceptable training are:

- Courses in a dental hygiene or dental assistant program accredited by the ADAs Commission on Accreditation that are directly related to the intra-oral procedures (also referred to as expanded functions) that are to be performed in the position to be filled.
- U.S. Army's Dental Therapy Assistant Training Program.
- Continuing education courses in expanded functions for dental assistants offered by the IHS.
- Other training comparable to the above in private or governmental hospitals, clinics, or schools that included formal classroom instruction and clinical training in the knowledge and skills required to perform intra-oral procedures in the position to be filled.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-682

Dental Hygiene Series

GS-682

This is an individual qualification standard.

Basic Requirements:

Licensure: Applicants for all grade levels and specializations must be currently licensed to practice as dental hygienists in a State or territory of the U.S. or the District of Columbia.

NOTE: Public Law 97-35 requires that persons who administer radiologic procedures meet the credentialing standards in 42 CFR Part 75. Essentially, they must (1) have successfully completed an educational program that meets or exceeds the standards described in that regulation, and is accredited by an organization recognized by the Department of Education, and (2) be certified as radiographers in their field. The following meet these requirements:

- (1) Persons employed by the Federal Government as radiologic personnel prior to the effective date of the regulation (January 13, 1986) who show evidence of current or fully satisfactory performance or certification of such from a licensed practitioner such as a doctor of medicine, osteopathy, dentistry, podiatry, or chiropractic who prescribes radiologic procedures to others.
- (2) Persons first employed by the Federal Government as radiologic personnel after the effective date of the regulation who (a) received training from institutions in a State or foreign jurisdiction that did not accredit training in that particular field at the time of graduation, or (b) practiced in a State or foreign jurisdiction that did not license that particular field or did not allow special eligibility to take a licensure examination for those who did not graduate from an accredited educational program, provided that such persons show evidence of training, experience, and competence as determined by the SPOs.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-682 (continued)

The following table shows the amounts of education and/or experience required to qualify for positions covered by this standard.

GRADE	EDUCATION	OR EXPERIENCE
GS-4	None	None
GS-5 Clinical Dental Hygienists	4-year course of study leading to a bachelor's degree in dental hygiene or in a directly related field of study.	1 year of experience as a licensed dental hygienist
Community Health Dental Hygienists	4-year course of study leading to a bachelor's degree, which included or was supplemented by a curriculum in dental hygiene; <i>or</i> Dental hygiene curriculum, plus appropriate experience, totaling 4 years.	None
GS-6 Clinical Dental Hygienists	None.	1 year of experience equivalent to at least the GS-5 level
GS-7 Clinical Dental Hygienists	None.	1 year of experience equivalent to at least the GS-6 level
Community Health Dental Hygienists	1 year of graduate education in dental hygiene or in a directly related field of study.	1 year of experience equivalent to at least the GS-5 level
GS-8 Clinical Dental Hygienists	None.	1 year of experience equivalent to at least the GS-7 level
GS-9 Community Health Dental Hygienists	2 years of progressively higher level graduate education or a Master's or equivalent degree in dental hygiene or a directly related field of study.	1 year of experience equivalent to at least the GS-7 level
GS-11 and above	None.	1 year of experience equivalent to at least the next lower grade level
Equivalent combinations of education and experience are qualifying for all grade levels and positions for which both education and experience are acceptable.		

QUALIFICATION STANDARDS OPERATING MANUAL

GS-682 (continued)

Evaluation of Education: The academic curriculum in dental hygiene must have been accredited by the Commission on Dental Accreditation, ADA.

Evaluation of Experience: When combining experience and education, appropriate supplemental experience for entry level Community Health Dental Hygienist must have demonstrated the ability to:

- Plan and direct group activities.
- Organize, analyze, and evaluate data, draw conclusions, and make decisions or recommendations.
- Express ideas and communicate information orally and in writing in a clear, logical, and motivating manner.
- Demonstrate and/or present new ideas, techniques, and procedures.
- Conduct meetings and present lectures.
- Deal effectively with individuals and groups.

Examples of work that may have provided this experience include work as a teacher, recreation leader, or leader in a community or professional organization.

Evaluation of Specialized Experience: Qualifying experience for clinical dental hygienists includes experience in performing oral prophylactic care and in providing oral health educational services to patients. Additionally, at the higher grade levels, qualifying experience includes (1) performing advanced oral prophylactic, therapeutic, and preventive procedures in cases of periodontal diseases or inflammation or on patients with other medical or dental problems, (2) placing temporary fillings, and (3) finishing amalgam restorations. Applicants for positions involving the use of X-rays must have had experience in taking and interpreting X-rays.

Qualifying experience for community health dental hygienists includes experience in preparing and conducting educational lectures and demonstrations on dental hygiene, planning public health programs, providing advice and policy guidance to dental personnel on public health matters, and recommending improved methods of dental hygiene.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-683

Dental Laboratory Aid and Technician Series

GS-683

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Examples of qualifying specialized experience include:

- Use of dental laboratory material such as impression materials, plasters, stones, hydrocolloids, waxes, metals, acrylics, porcelain, and similar materials.
- Use of laboratory equipment such as hand tools, dental lathes, engines, and hand pieces, furnaces, casting machines, presses, flasks, and related equipment.
- Use of precision instruments such as articulators, surveyors, and microanalyzers.
- Construction of dental prosthetic appliances.

OR

Education and Training:

For GS-3: Successful completion of the first full year (9 months) of the 2-year program of study and training in dental technology in a school for dental laboratory technicians approved by the Council on Dental Education of the ADA.

For GS-4: Successful completion of a full 2-year program (18 months) of study and training in dental technology as described above for GS-3.

For GS-5: Successful completion of an approved apprenticeship program consisting of at least 2000 hours a year for 3 years.

For GS-6: Successful completion of a full 4-year apprenticeship program consisting of at least 2000 hours a year.

The successful completion of training courses in dental laboratory work in the Armed Forces or other Federal agencies will be allowed appropriate credit for specialized experience on a month-for-month basis up through GS-5.

Licensed professional dentists will be considered qualified for any grade level if they have, in the aggregate, the required experience in dental laboratory procedures.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-685

Public Health Program Specialist Series

GS-685

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

Undergraduate and Graduate Education:

For GS-5/7: Major study--any field.

For GS-9/11: Major study--public health or other field of study with course work directly related to the work of the position to be filled.

OR

General Experience (for GS-5 positions): Experience that provided evidence that the applicant has the potential to learn and perform public health program work, including the abilities to:

- Collect and evaluate facts.
- Interpret and apply guidelines and specifications.
- Use analytical methods and processes to draw conclusions.
- Express ideas and concepts orally, in writing, and by numeric and graphic means.
- Deal effectively with people.

Specialized Experience (for positions above GS-5): Experience that provided:

- Knowledge of organizational, operational, and programmatic concepts and practices applied by public, private, or nonprofit agencies and organizations engaged in public health or other health-related activities.
- Knowledge of the methods, processes, and techniques used to develop and deliver public health or health-related programs in State and local settings.
- Knowledge of a specialized public health program.
- Knowledge of, and skill in, the application of administrative or analytical methods and techniques necessary for working within the framework of a public health or related organization and carrying out specific program functions.
- Skill in oral and written communications, gathering and conveying information, making oral presentations, and preparing reports, correspondence, and other written materials.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-685 (continued)

Examples of qualifying specialized experience include:

- Public Health Advisor positions--providing advice and assistance to State and local governments, and to various public, nonprofit, and private agencies and organizations on matters relating to the improvement of their public health activities.
- Public Health Analyst positions--conducting studies and performing other analytical work related to the planning, development, organization, administration, evaluation, and delivery of public health programs.

GS-688

Sanitarian Series

GS-688

This is an individual qualification standard.

Basic Requirements:

Education (for GS-5 positions): A full 4-year course of study that meets all the requirements for a bachelor's degree, and that included or was supplemented by at least 30 semester hours in a science or any combination of sciences directly related to environmental health (such as sanitary science, public health, chemistry, microbiology, or any appropriate agricultural, biological, or physical science).

OR

Experience (for GS-5 positions): Four years of experience in inspectional, investigational, technical support, or other responsible work that provided a knowledge and a fundamental understanding of, and the ability to use, environmental health principles, methods, and techniques equivalent to that which would have been gained through a 4-year college curriculum.

OR

A combination of education and experience as described above.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-688 (continued)

Additional Requirements for Grades GS-7 and Above:

In addition to meeting the basic requirements, applicants for positions at grades GS-7 and above must have the amounts of education and/or experience required for the grade level as shown in the following table.

GRADE	EDUCATION	OR	EXPERIENCE
GS-7	1 full year of graduate level education related to environmental health or superior academic achievement.		1 year of experience equivalent to at least the GS-5 level.
GS-9	2 full years of progressively higher level graduate education or master's or equivalent graduate degree related to environmental health.		1 year of experience equivalent to at least the GS-7 level.
GS-11	Completion of all requirements for a doctoral degree (Ph.D., M.D., or equivalent) or 3 full years of progressively higher level graduate education.		1 year of experience equivalent to at least the GS-9 level.
GS-12 and above	None.		1 year of experience equivalent to at least the next lower grade level.

Equivalent combinations of education and experience are qualifying for grade levels for which both education and experience are acceptable.

Evaluation of Education: Examples of qualifying education related to environmental health include study in such fields as sanitary science, public health, chemistry, microbiology, or agricultural, biological, or physical sciences appropriate to the position to be filled.

Evaluation of Experience: Qualifying specialized experience is experience in developing, evaluating, and advising on programs designed to prevent and eliminate environmental health hazards. Examples of qualifying specialized experience include analyzing substances to determine contamination or the presence of disease, or resolving environmental health problems through collection, tabulation, and evaluation of environmental sanitation data and development and implementation of plans to eliminate or control environmental health hazards.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-690

Industrial Hygiene Series

GS-690

Use these individual /occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

A. Degree: industrial hygiene; or a branch of engineering, physical science, or life science that included 12 semester hours in chemistry, including organic chemistry, and 18 additional semester hours of courses in any combination of chemistry, physics, engineering, health physics, environmental health, biostatistics, biology, physiology, toxicology, epidemiology, or industrial hygiene. Courses in the history or teaching of chemistry are not acceptable.

OR

B. Combination of education and experience--at least 12 semester hours of course work in chemistry, including organic chemistry, and 18 additional semester hours as specified in A above, plus appropriate experience or additional education.

Evaluation of Education: All science or engineering courses offered in fulfillment of the above requirements must be acceptable for credit toward the completion of a standard 4-year professional curriculum leading to a bachelor's degree in science or engineering at an accredited college or university.

Evaluation of Experience: Qualifying experience may have been obtained in field, laboratory, engineering, or other environment if the work provided a means of obtaining a professional knowledge of the theory and application of the principles of industrial hygiene and closely related sciences such as physics and engineering controls. Such work must have involved experience in all of the following areas: the acquisition of quantitative and qualitative data, and the measurement of exposures for a variety of chemical, physical, and biological stresses; the analysis of the data acquired and the prediction of probable effects of exposures on the health and well-being of workers; and the selection and recommendation of appropriate controls, including management, medical, engineering, education or training, and personal protective equipment.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-698

Environmental Health Technician Series

GS-698

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above: Experience that involved identifying, preventing, or eliminating health hazards in one or more areas of environmental sanitation. Such experience must have provided a practical knowledge of environmental health hazards, survey techniques, and control and eradication methods, and may have been gained in work such as biological technician, medical technician, pest control technician, quality control positions with dairy or food service industries, or environmental health worker.

Journey level experience in a trade or craft may be credited as specialized experience when the work was closely associated with and provided the required knowledge of environmental health techniques, methods, and skills, e.g., pest control operator, waterplant operator.

Education and Training:

For GS-3: Successful completion of 1 year of study.

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in any combination of courses in the health, agricultural, biological, or physical sciences.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree with major study or at least 24 semester hours in any combination of courses in subjects such as those shown above for GS-4.

GS-699

Medical and Health Student Trainee Series

GS-699

Use the "Group Coverage Qualification Standard for IHS Excepted Service Student Trainee Positions" as appropriate to the appointing authority used.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-800

All Professional Engineering Positions

GS-800

Use these individual occupational requirements for all professional engineering series in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions." The following occupations are included:

General Engineering Series	GS-801
Safety Engineering Series	GS-803
Civil Engineering Series	GS-810
Environmental Engineering Series	GS-819
Mechanical Engineering Series	GS-830
Electrical Engineering Series	GS-850
Computer Engineering Series	GS-854
Electronics Engineering Series	GS-855
Biomedical Engineering Series	GS-858
Ceramic Engineering Series	GS-892
Chemical Engineering Series	GS-893
Industrial Engineering Series	GS-896

Basic Requirements:

- A. Degree: professional engineering. To be acceptable, the curriculum must: (1) be in a school of engineering with at least one curriculum accredited by the Accreditation Board for Engineering and Technology (ABET) as a professional engineering curriculum; or (2) include differential and integral calculus and courses (more advanced than first-year physics and chemistry) in five of the following seven areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

OR

- B. Combination of education and experience--college-level education, training, and/or technical experience that furnished (1) a thorough knowledge of the physical and mathematical sciences underlying professional engineering, and (2) a good understanding, both theoretical and practical, of the engineering sciences and techniques and their applications to one of the branches of engineering. The adequacy of such background must be demonstrated by one of the following:

1. *Professional registration*--Current registration as a professional engineer by any State, the District of Columbia, Guam, or Puerto Rico. Absent other means of qualifying under this standard, those applicants who achieved such registration by means other than written test (e.g., State grandfather or eminence provisions) are eligible only for positions that are within or closely related to the specialty field of

QUALIFICATION STANDARDS OPERATING MANUAL

GS-800 (continued)

their registration. For example, an applicant who attains registration through a State Board's eminence provision as a manufacturing engineer typically would be rated eligible only for manufacturing engineering positions.

2. *Written test*--Evidence of having successfully passed the Engineer-in-Training (EIT) examination, or the written test required for professional registration, which is administered by the Boards of Engineering Examiners in the various States, the District of Columbia, Guam, and Puerto Rico.

Applicants who have passed the EIT examination and have completed all the requirements for either (a) a bachelor's degree in engineering technology (BET) from an accredited college or university that included 60 semester hours of courses in the physical, mathematical, and engineering sciences, or (b) a BET from a program accredited by the Accreditation Board for Engineering and Technology (ABET) may be rated eligible for certain engineering positions at GS-5. Eligibility is limited to positions that are within or closely related to the specialty field of the engineering technology program. Applicants for positions that involve highly technical research, development, or similar functions requiring an advanced level of competence in basic science must meet the basic requirements in paragraph A.

Because of the diversity in kind and quality of BET programs, graduates of other BET programs are required to complete at least 1 year of additional education or highly technical work experience of such nature as to provide reasonable assurance of the possession of the KSAs required for professional engineering competence. The adequacy of this background must be demonstrated by passing the EIT examination.

3. *Specified academic courses*--Successful completion of at least 60 semester hours of courses in the physical, mathematical, and engineering sciences and in engineering that included the courses specified in the basic requirements. The courses must be fully acceptable toward meeting the requirements of a professional engineering curriculum as described in paragraph A.
4. *Related curriculum*--Successful completion of a curriculum leading to a bachelor's degree in engineering technology or in an appropriate professional field, e.g., physics, chemistry, architecture, computer science, mathematics, hydrology, or geology, may be accepted in lieu of a degree in engineering, provided the applicant has had at least 1 year of professional engineering experience acquired under professional engineering supervision and guidance. Ordinarily there should be either an established plan of intensive training to develop professional engineering competence, or several years of prior professional engineering-type experience, e.g., in interdisciplinary positions. (The above examples of related curricula are not all-inclusive.)

QUALIFICATION STANDARDS OPERATING MANUAL

GS-800 (continued)

Note: An applicant who meets the basic requirements as specified in A or B above may qualify for positions in any branch of engineering unless selective factors indicate otherwise, or unless he/she qualifies under the provisions of B.2 related to the EIT examination or BET degree.

Additional Experience and Training Provisions for Graduates of Professional Engineering Curricula:

- a. Superior academic achievement at the baccalaureate level in a professional engineering curriculum is qualifying for GS-7.
- b. Individuals can be converted noncompetitively to a GS-7 position if they complete all the requirements of a Federal baccalaureate level student-trainee program, including 1040 hours of work experience, 320 hours of which was at the GS-5 level.
- c. A combination of S.S.A. and 1 year of appropriate professional experience is qualifying at GS-9.
- d. Applicants with an engineering degree who have appropriate experience as a technician equivalent to grade GS-5 or higher may have such experience credited for grade GS-7 only on a month-for-month basis up to a maximum of 12 months.
- e. Successful completion of a 5-year program of study of at least 160 semester hours leading to a bachelor's degree in engineering is qualifying at GS-7. Completion of such a program and 1 year of appropriate professional experience is qualifying at grade GS-9.

Definition of Professional Engineering Experience: The professional engineering experience required for grades GS-7 and above is defined as nonroutine engineering work that required and was characterized by (1) professional knowledge of engineering; (2) professional ability to apply such knowledge to engineering problems; and (3) positive and continuing development of professional knowledge and ability.

Professional knowledge of engineering is defined as the comprehensive, indepth knowledge of mathematical, physical, and engineering sciences applicable to a specialty field of engineering that characterizes a full 4-year professional engineering curriculum leading to a bachelor's degree, or the equivalent.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-800 (continued)

Professional ability to apply engineering knowledge is defined as the ability to (a) apply fundamental and diversified professional engineering concepts, theories, and practices to achieve engineering objectives with versatility, judgment, and perception; (b) adapt and apply methods and techniques of related scientific disciplines; and (c) organize, analyze, interpret, and evaluate scientific data in the solution of engineering problems.

Professional work in engineering, like that in other professions, is marked by continuing personal effort to keep abreast of the advancing and changing discipline. Continuing education in engineering and related fields is an important element of full professional competence as an engineer that should be considered in evaluating the qualifications of applicants for professional engineering positions.

In some situations, experience may be creditable even if it is not clearly professional engineering work. In such cases, the experience must have been preceded by prior responsible professional engineering experience and must contribute directly and significantly to the applicant's engineering competence. For example, an engineer might be assigned to a management-type position in preparation for assumption of higher-level responsibilities in engineering project or program management.

Graduate Education:

1. Individuals can be converted noncompetitively to a GS-9 position if they complete all the requirements of a Federal graduate-level student-trainee program, including completion of a master's degree in engineering and completion of 640 hours of work experience, 320 hours of which was at GS-7.
2. Regardless of the field of undergraduate study, completion of the requirements for a master's or higher degree in engineering is fully qualifying for the grade indicated, provided the applicant's total background, i.e., education and any experience, demonstrates evidence of KSAs that are substantially equivalent to those acquired through the successful completion of the courses specified in paragraph A.
3. With a bachelor's degree in engineering, graduate education in a related field is acceptable in lieu of graduate study in engineering for appropriate types of positions. For example, a B.S. in engineering plus a master's degree in business administration would be qualifying for Industrial Engineer, GS-9, but not for GS-9 laboratory positions in research and development. The key consideration in determining if such graduate education should be credited is whether or not the education provided the KSAs necessary to perform the work of the position being filled.

Special Competence in Particular Areas of Engineering: Many engineering positions demand specific competence in a particular function or area. For such positions, agencies

QUALIFICATION STANDARDS OPERATING MANUAL

GS-800 (continued)

may use selective factors to identify those applicants whose records show evidence of the required capabilities. Such selective factors can be used for positions at all grade levels covered by this standard.

Engineering Registration: Registration as a professional engineer is an appropriate selective factor for appointment to certain, typically high-level, engineering positions. The key consideration is that registration must be essential for acceptable performance of the work of the position to be filled. Accordingly, it is an appropriate requirement for positions with duties and responsibilities that satisfy one of the following criteria:

- Responsibility for final approval of designs of major structures and facilities involving public safety where such compliance with State laws meets an essential need of the engineering organization to provide objective evidence to agency management and the public that the work is performed by engineers of proven competence.
- Responsibility for engineering determinations concerning contract awards or other major aspects of design and construction work to be performed by engineers in the private sector, where registration is essential to have their full confidence and respect to achieve cooperation on critical engineering issues.

When an engineering position has duties and responsibilities that would support a requirement for registration and a requirement is established, the position description should clearly document the basis for the requirement. It would be inappropriate to require that applicants be registered for positions with less responsibility than that indicated above, for positions that involve responsibilities and functions such as research and development, or for the sole purpose of improving the "image" of engineers in the Federal service. For those positions where registration is an appropriate requirement, such positions have been characteristically filled by registered professional engineers. If a currently filled position is newly identified as requiring a professional engineer, the requirement for registration should be waived for the duration of the employee's incumbency.

The Engineer-in-Training Test (EIT): The EIT test is the first part of the professional registration examination for engineers in the various States. The EIT test is a test of engineering fundamentals generally taken by engineering school seniors or recent graduates. Those who pass are certified as Engineer-in-Training. The second part of the registration examination, covering practice in a branch of engineering, is taken after a specified period of experience required for registration as a professional engineer.

The EIT test is used under this standard to determine whether competitors without a degree in engineering or other qualifying education have a knowledge and understanding

QUALIFICATION STANDARDS OPERATING MANUAL

GS-800 (continued)

of mathematical, physical, and engineering sciences required to perform professional engineering work in a specialty field of engineering. This test is not to be considered as being in lieu of the requirement of at least 4 years of experience and/or education that might be regarded as providing such knowledge.

The EIT test is developed and administered by the State Board of Engineering Examiners in each State or comparable jurisdiction. Persons who desire to take the Engineer-in-Training test should direct their inquiries to the Secretaries of the appropriate State Boards.

College Teaching: College-level teaching of engineering may be considered as professional experience in engineering. In accepting and evaluating teaching experience, all specific qualification requirements pertaining to the evaluation of professional experience such as grade level, responsibility, scope, specialization, and knowledge required are also applicable to the evaluation of teaching experience. Teaching experience that is accompanied by a significant amount of research, direction of research, investigative, or similar work may be credited at full value in meeting a specific requirement for research, investigative, or similar experience.

Guide for the Evaluation of Engineering Curricula: The Accreditation Board for Engineering and Technology (formerly the Engineers' Council for Professional Development) accredits specific engineering and engineering technology curricula; it does not accredit institutions. Thus, an accredited college may have (1) ABET-accredited professional engineering curricula; (2) professional engineering curricula that are not ABET-accredited; and (3) 4-year curricula in engineering technology that may or may not be ABET-accredited.

The Accreditation Board for Engineering and Technology publishes two bulletins: "Accredited Curricula Leading to First Degrees in Engineering" and "Accredited Curricula Leading to First Degrees in Engineering Technology." Those wishing to obtain copies of these bulletins should contact the Accreditation Board for Engineering and Technology, 345 East 47th Street, New York, N.Y. 10017. A summary of ABET-accredited engineering programs also appears periodically in the *Journal of Engineering Education*.

Some engineering curricula are acceptable as meeting the basic requirements even though such curricula are not specifically accredited by the Accreditation Board for Engineering and Technology. As a general rule, any professional engineering curriculum in an engineering school that has one or more of its curricula accredited by ABET may be accepted. It should be noted, however, that some universities have curricula identified as engineering curricula outside the engineering school, e.g., in the school of architecture or forestry. Such curricula need to be reviewed to see if they comply with the requirements of paragraph A.(2) of the basic requirements.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-801

General Engineering Series

GS-801

Use the GS-800 individual occupational requirements for Professional Engineering Positions.

GS-802

Engineering Technician Series

GS-802

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Examples of occupations that may have provided qualifying specialized experience include: draftsman, surveying technician, construction estimator, physical science technician, or mathematical technician.

Experience in a trade or craft may be credited as specialized experience when the work provided intensive knowledge of engineering principles, techniques, methods, and precedents. Examples are trade positions with substantial developmental, test, or design responsibilities such as:

- Planner and estimator who analyzed designs for production purposes.
- Instrumentmaker or modelmaker who performed design or development work on devices fabricated.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study that included at least 6 semester hours in any combination of courses such as engineering, engineering or industrial technology, construction, physics, drafting, surveying, physical science, or mathematics.

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in any combination of courses such as those shown above for GS-3.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree (a) with major study in an appropriate field of engineering, construction, or industrial technology; or (b) that included at least 24 semester hours in any combination of courses such as those shown above for GS-3.

Certification: Engineering technicians may be certified by the National Institute for Certification in Engineering Technologies, an organization sponsored by the National Society of Professional Engineers. Certification by the Institute will be helpful as a measure of the technician's quality of experience.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-803

Safety Engineering Series

GS-803

Use the GS-800 individual occupational requirements for Professional Engineering Positions.

GS-808

Architecture Series

GS-808

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

A. Degree: architecture; or related field that included 60 semester hours of course work in architecture or related disciplines of which at least (1) 30 semester hours were in architectural design, and (2) 6 semester hours were in each of the following: structural technology, properties of materials and methods of construction, and environmental control systems.

OR

B. Combination of education and experience--college-level education, training, and/or technical experience that furnished (1) a thorough knowledge of the arts and sciences underlying professional architecture, and (2) a good understanding, both theoretical and practical, of the architectural principles, methods, and techniques and their applications to the design and construction or improvement of buildings. The adequacy of such background must be demonstrated by at least one of the following:

1. *Related Curriculum:* Degree in architectural engineering may be accepted as satisfying in full the basic requirements, provided the completed course work in architectural engineering provided KSAs substantially equivalent to those provided in the courses specified in paragraph A. The curriculum for a degree in either architecture or architectural engineering covers function, esthetics, site, structure, economics, mechanical-electrical, and other engineering problems related to the design and construction of buildings primarily (but not exclusively) intended to house human activities. The courses required for a degree in architecture generally place emphasis upon planning, esthetics, and materials and methods of construction, while the courses for an architectural engineering degree place equal or greater weight on the technical engineering aspects such as structural systems, mechanical systems, and the properties of materials. Because of this difference in emphasis, persons with degrees in architecture may have a preference for work assignments that offer greater opportunities for them to express their artistic and creative abilities. As a result, they may be more concerned with planning and design aspects of architecture, and persons with degrees in architectural engineering may be more engaged in aspects emphasizing technical engineering considerations.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-808 (continued)

2. **Experience:** An applicant lacking a degree in architecture must have had 1 year of experience in an architect's office or in architectural work for each year short of graduation from a program of study in architecture. In the absence of college courses, 5 years of such experience is required. This experience must have demonstrated that the applicant has acquired a thorough knowledge of the fundamental principles and theories of professional architecture.

Alternate Requirements for GS-7:

- a. Successful completion of a 5-year program of study of at least 160 semester hours leading to a Bachelor of Architecture or higher degree in an accredited college or university is qualifying for GS-7.
- b. Applicants with an architecture degree who have appropriate experience as a technician equivalent to grade GS-5 or higher may have such experience credited for grade GS-7 only on a month-for-month basis up to a maximum of 12 months.

(Note: These provisions also apply to graduates of architectural engineering curricula.)

Registration: Candidates registered to practice architecture by one of the State registration boards, using standards in compliance with the basic minimum provisions recommended by the National Council of Architectural Registration Boards, are recognized as meeting the full requirements for eligibility at GS-11.

Nonqualifying Experience: The following kinds of experience are not acceptable as professional architectural experience: professional landscape architecture work consisting mainly of the layout, design, construction, or maintenance of land areas and landscape features, including ground and water forms, vegetation, roads, walks, incidental structures, and other landscape features; experience in the application of artistic embellishment to practical design such as the decoration of interiors, including the construction, layout, and selection of furniture and furnishings that do not alter the basic architectural design of the interior; city and community planning work that relates to the broad social and economic growth and development of such community services and facilities as industry, commerce, transportation, streets, utilities, and parks.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-808 (continued)

Architectural Registration as a Selective Factor: Registration as a professional architect is an appropriate selective factor for appointment to certain, typically high-level, architect positions. The key consideration is that registration must be essential for acceptable performance of the work of the position to be filled. Accordingly, it is an appropriate requirement for positions with duties and responsibilities that satisfy one of the following criteria:

- Responsibility for final approval of design standards and criteria for designs of major buildings and related structures involving public safety where such compliance with State laws meets an essential need of the architectural organization to provide objective evidence to agency management and the public that the work is performed by architects of proven competence.
- Responsibility for architectural determinations concerning contract awards or other major aspects of design and construction work to be performed by architects in the private sector where registration is essential to have their full confidence and respect to achieve cooperation on critical architectural issues.

Some architect positions in the Federal service have duties and responsibilities that would support a requirement for registration. The position description should clearly document the basis for the registration requirement. It would not be appropriate to require that candidates be registered for positions with less responsibility than that indicated above, for positions that involve responsibilities and functions such as research, or for the sole purpose of improving the "image" of architects in the Federal service. Because of the importance of registration for those positions where it is an appropriate requirement, such positions have been characteristically filled by registered professional architects. If a currently filled position is newly identified as requiring a registered architect, the requirement or registration should be waived for the duration of the employee's incumbency.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-809

Construction Control Series

GS-809

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Examples of qualifying specialized experience include:

- Engineering aid or technician or surveying technician performing work directly related to construction.
- Construction inspector or construction representative responsible for interpreting plans and specifications, inspecting materials and workmanship, and insuring adherence to safety requirements.
- Supervisor of craftspersons, equipment operators, or mechanics engaged in construction work, provided that the experience involved responsibility for interpreting plans and specifications and inspecting workmanship for adherence to such plans and specifications.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study that included at least 6 semester hours of courses in one or a combination of courses such as drafting, surveying, mathematics, physical science, industrial technology, industrial arts, or technical subjects pertinent to construction; or engineering technician work such as electricity, material testing, or engineering mechanics.

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in any combination of courses such as those shown above for GS-3.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree (a) with major study in an appropriate field of engineering, construction, or industrial technology; or (b) that included at least 24 semester hours in any combination of courses such as those shown above for GS-3.

GS-810

Civil Engineering Series

GS-810

Use the GS-800 individual occupational requirements for Professional Engineering Positions.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-818

Engineering Drafting Series

GS-818

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Experience that involved preparing engineering or architectural drawings using drafting techniques, and making mathematical computations using standardized tables and formulas.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study that included at least one course in engineering, engineering or industrial technology, construction, drafting, surveying, physical science, or mathematics.

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in any combination of courses such as those shown above for GS-3. At least 3 of the 12 semester hours must have been in drafting.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree that included major study or at least 24 semester hours in any combination of courses such as those shown above for GS-3. At least 6 of the 24 semester hours must have been in drafting.

Drafting Samples (Optional): Applicants for positions at grades GS-4 and above may be required to submit drafting samples. These samples should indicate a knowledge of drafting principles, techniques, and practices, as well as skill and proficiency in actually preparing drawings, to a degree consistent with the duties of the position. Applicants should be encouraged to prepare samples that will do full justice to their abilities.

Samples must be original drawings, or tracings or prints of original drawings, the same size as the original, i.e., not reduced. They must include or be supplemented by examples of freehand lettering. Applicants must sign all samples. Above their signature, there must be a statement that all drafting was performed by them, or in case they did not do all the work on the sheet, a statement clearly indicating the nature and extent of their own work on the sample.

GS-819

Environmental Engineering Series

GS-819

Use the GS-800 individual occupational requirements for Professional Engineering Positions.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-1040

Language Specialist Series

GS-1040

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--the appropriate foreign language from an English-speaking college or university, English from a college or university in the other country, or translating or interpreting where English and the foreign language were prerequisites.

OR

EXPERIENCE

General Experience (for GS-5 positions): Knowledge of both English and the appropriate foreign language are required. This knowledge may be demonstrated through education, experience, or a combination of the two for entry level positions as listed below:

English

- Three years of work experience requiring considerable use of English.
- A full 4-year course in a college or university in any subject where the instruction was primarily in English.
- Experience in speaking English where English was the second language in the high school system of a non-English speaking country.

Foreign Language

- Experience in speaking or writing in the language because it was the language (a) in which the applicant was educated (through the high school level), (b) of the household, or (c) in which the applicant worked for a long period of time, including service in the Armed Forces.
- A full 4-year course in an accredited college or university in a country where the foreign language required for the position to be filled is the native language.

Specialized Experience (for positions above GS-5): Experience in translating, interpreting, or other work requiring the use of English and the other language; or a combination of work (that required English and the other language) and training at the Defense Language Institute, Foreign Service Institute, or comparable training.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1040 (continued)

The following are examples of work in the required language that may have provided the required abilities: translator; interpreter; librarian or information specialist required to make abstracts, screen, index, and scan material; intelligence; writer or editor; international organizational work, such as the Peace Corps, World Bank, United Nations, business, or other organizations; or professor, teacher, or instructor work at the high school or college level that required use of the foreign language.

TESTING PROVISIONS

Applicants may be tested for foreign language proficiency on a pass/fail basis prior to appointment. The connection between the level of proficiency required and the duties of the position to be filled must be documented. Test material for applicants for the same position or grade level should be equally difficult, and should be selected from typical work-related documents.

GS-1046

Language Clerical Series

GS-1046

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

LANGUAGE PROFICIENCY

Applicants for positions in this series must possess the degree of language proficiency required to perform the work of the position to be filled.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1071

Audiovisual Production Series

GS-1071

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--photography, radio or television production, motion picture production, or other fields related to the position.

Advanced training in a vocational school, technical institute, or art institute above the high school level in one of the fields listed above is creditable as general experience on a month-for-month basis.

EXPERIENCE

General Experience (for GS-5 positions): Experience that demonstrated the skills and creativity needed to use the tools or equipment associated with the work. Because talent and creative ability are vital to successful work performance, samples of work or other suitable evidence of technical competence may be required. Unpaid experience that is pertinent should be credited based upon its relevance to the work of the particular position to be filled. To be qualifying, the work must have provided a general knowledge of the fields of radio, movie, television, and/or audio-visual communication.

Specialized Experience (for positions above GS-5): Experience in the actual type of work for which application is made. Unpaid experience is creditable, provided the work done was of a quality level and demonstrated the ability required for the position. This includes work directly connected with the production aspects of the field(s) of the position to be filled.

GS-1082

Writing and Editing Series

GS-1082

Use the "Group Coverage Qualification Standard for Administrative and Management Positions."

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-1083

Technical Writing and Editing Series

GS-1083

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Must have included a total of 15 semester hours in an appropriate scientific, technical, or social science field(s), and at least one course above the introductory level in the field(s) covered by the position. For technical manuals and specifications writers or editors, the equivalent of 15 semester hours may have been gained through vocational or educational training above the high school level at a public, private, or Armed Forces school.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided an understanding of the basic principles, practices, operations, and specialized vocabulary of the appropriate scientific, technical, or social science field(s), or with equipment or technical systems. The applicant must have acquired the ability to describe information in simple, clear language.

Specialized Experience (for positions above GS-5): Experience that required substantial subject-matter or technical knowledge of the field. This experience must have demonstrated the ability to acquire and present technical information through independent reading, interviews with subject-matter specialists, observation of tests and experiments, interpretation of blueprints or diagrams, or other appropriate methods. Such experience may have been acquired as a writer or editor of technical reports, articles, manuals, or specifications.

GS-1084

Visual Information Series

GS-1084

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--commercial art, fine arts, art history, industrial design, architecture, drafting, interior design, photography, visual communication, or other fields related to the position. Some positions may also require subject-matter knowledge of medicine, science, or technical equipment.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1102

Contracting Series

GS-1102

This is an individual qualification standard.

EDUCATION AND EXPERIENCE REQUIREMENTS

The following table shows the amounts of education and/or experience required to qualify for positions covered by this standard.

GRADE	EDUCATION	OR EXPERIENCE	
		General	Specialized
GS-4*	2-year course of study above high school leading to an associate degree.	30 months general experience or 24 months of general experience provided at least 6 months of the qualifying experience has been gained working for or with AI/ANs or appropriate combination of education and/or experience as specified below.	None.
GS-5	4-year course of study above high school leading to a bachelor's degree.	3 years, 1 year of which was equivalent to at least GS-4.	None.
GS-7	1 full year of graduate education or law school or S.S.A.	None.	1 year equivalent to at least the GS-5 level.
GS-9	2 full years of progressively higher level graduate education or master's or equivalent graduate degree or LL.B. or J.D.	None.	1 year equivalent to at least the GS-7 level.
GS-11	3 full years of progressively higher level graduate education or Ph.D. or equivalent doctoral degree.	None.	1 year equivalent to at least the GS-9 level.
GS-12 and above	None.	None.	1 year equivalent to at least the next lower grade level.
Equivalent combinations of education and experience are qualifying for grade levels for which both education and experience are acceptable.			

*For classifying a contract specialist position at the GS-4 level, it is appropriate to use the Primary Standard of the Factor Evaluation System for at least one of the factors. The GS-5 is the lowest grade level attainable by use of the factor level descriptions in the GS-1102 classification standards. Specifically, the knowledge factor needs to be assigned at level 1-4 for the GS-4 level.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1102 (continued)

Undergraduate Education:

GS-4: Successful completion of a full 2-year course of study in an accredited college or university that meets all requirements for an associate degree in a field directly related to the position being filled, (e.g., business administration, acquisition, acquisition management, contracting, procurement, purchasing).

OR

A time equivalent combination of experience and education as defined above. In combining education with experience, an academic year of study (30 semester hours) is equivalent to 9 months experience.

GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree in any field, in an accredited college or university, meets the requirements at the GS-5 level. Applicants who meet the criteria for S.S.A. qualify for positions at the GS-7 level.

General Experience (for GS-4 positions): Thirty (30) months of general experience. General experience is administrative, technical, or other responsible work which provided opportunity for the applicant to gain and demonstrate:

- Knowledge and skill to collect and analyze data, relate data to established guides, and evaluate the significance of the collected data;
- Knowledge and skill to analyze facts and conditions, to draw conclusions and make recommendations and suggestions for corrections or improvements;
- Knowledge of arithmetic practices used in business to compare prices, including discounts and warranties;
- Knowledge and skill to read and interpret regulations and technical material, and translate the guidance into specific actions;
- Knowledge and skill to present technical information in written form;
- Skill in dealing with others in a work relationship to present information orally and accomplish a given purpose;
- Knowledge of acquisition practices and procedures.

General Experience (for GS-5 positions): Experience that demonstrated all of the following:

- Knowledge of procurement practices and procedures.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-1102 (continued)

- Skill in obtaining, analyzing, and evaluating complex textual and/or quantitative information in order to make comparisons among alternatives or to make recommendations for corrections or improvements in processes, operations, or policies.
- Skill in oral and written communication.

Such experience may have been gained in work such as the following:

- Procurement, purchasing, rental, or lease of supplies, services, and equipment through open-market methods, placement of purchase orders, placement of orders under blanket purchase agreements or under indefinite delivery contracts such as Federal supply schedules, or other purchase procedures pertinent to contracting.
- Governmental or commercial purchasing, procurement, contract negotiation, administration, or termination that included preparing solicitations, contracts, contract modifications, or supporting procurement documents; evaluating and reporting on performance of contractors in meeting terms of contracts; or obtaining and analyzing product and price data for contract negotiations.
- Performing comparative analysis of vendor terms and/or price quotations with historical data to develop recommendations on vendor selection, terms, or prices.
- Buyer, purchasing or business manager, or other position that involved selecting appropriate suppliers, performing cost/price analysis, and/or establishing terms or prices for goods or services.

Experience in clerical or technical support work that primarily consisted of typing, filing, maintaining or verifying records, or other kinds of activities that did not provide applicants with appropriate general or specialized experience as described above, is not qualifying, whether or not it was performed in a contracting/procurement environment.

Graduate Education: Successful completion of graduate education that provided the KSAs necessary to do the work is qualifying for positions at grades GS-7 through GS-11. To qualify for contracting positions on the basis of graduate education, graduate study in one or a combination of the following fields is required: acquisition management, business administration, contracting or procurement, economics, finance, industrial management, law, management and organization, marketing, public administration, purchasing, quantitative methods, or other fields related to the position to be filled.

Specialized Experience (for positions above GS-5): One year of specialized experience equivalent to at least the next lower grade level in the normal line of progression is qualifying for positions at grades GS-7 and above. Specialized experience must have

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1102 (continued)

equipped the applicant with the particular KSAs to perform successfully the duties of the position to be filled. Examples of qualifying specialized experience include:

- Developing, preparing, and presenting terms and conditions in bids or proposals related to the award of contracts.
- Negotiating and awarding contracts, contract modifications, and/or subcontracts.
- Legal practice involving participation in negotiating, awarding, or administering contracts, or the analysis of procurement policies and procedures.
- Administering the terms and conditions of contracts, including such aspects as preparing contract modifications, evaluation of performance under the contract, and contract termination.
- Analyzing proposed prices or costs, including such aspects as evaluating technical and audit reports, forecasting price trends, evaluating economic factors, estimating production efficiencies, and evaluating methods of allocating costs through various types of overhead and general and administrative expense.
- Formulating policies and procedures for the acquisition of goods or services, participating in procurement management reviews and contract clearance, or developing positions on claims and protests related to contracts.

Alternate Requirement: Certification by a professional procurement association. The following certificates, obtained through written examination, are acceptable to meet GS-5 level requirements: Certified Professional Contracts Manager from the National Contract Management Association, Certified Purchasing Manager from the National Association of Purchasing Management, or Certified Public Purchasing Officer from the National Institute of Governmental Purchasing. Applicants with one of these certificates may also qualify for positions above GS-5 depending on their education and/or experience.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1103

Industrial Property Management Series

GS-1103

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--business administration, accounting, law, marketing, statistics, production management, industrial management, or other fields related to the position.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided an understanding of general business and/or industrial practices, and that demonstrated the ability to deal satisfactorily with others. Such experience may have been gained in purchasing (contracting), accounting/auditing, logistics, maintenance, production (manufacturing), property utilization, marketing, industrial planning, storage or supply management, legal, financial, engineering, quality assurance, inventory control, data processing, inspection of material, or similar activities. Journey level experience in a trade or craft that provided knowledge of industrial operations and practices related to control of property is also qualifying. Successful completion of a formal training program in fields related to the position to be filled may also provide evidence of the required knowledge and skills.

Specialized Experience (for positions above GS-5): Experience that demonstrated:

- Skill in developing, implementing, administering, evaluating, monitoring, or coordinating programs, policies, regulations, and procedures concerned with the management, control, utilization, or disposition of personal or industrial property;
- Knowledge of the values and uses of property items, merchandising methods, marketing techniques and outlets, or general trade practices related to the disposition of property; and/or the ability to understand and evaluate business practices relating to the acquisition, control, use, consumption, maintenance, and preservation of property;
- Working knowledge of equipment, machinery, tools, materials, or other items of personal or real property;
- Knowledge of government sales policies, regulations, and methods; and
- Knowledge of contract provisions, and ability to interpret and apply contract clauses and government procurement regulations.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1306

Health Physics Series

GS-1306

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

A. Degree: natural science or engineering that included at least 30 semester hours in health physics, engineering, radiological science, chemistry, physics, biology, mathematics, and/or calculus.

OR

B. Combination of education and experience--courses equivalent to a major in physics totaling at least 24 semester hours, plus appropriate experience or additional education.

In either A or B above, the courses must have included a fundamental course in general physics and, in addition, courses in any two of the following: electricity and magnetism, heat, light, mechanics, modern physics, and sound.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1311

Physical Science Technician Series

GS-1311

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Technical and Medical Support Positions."

Specialized Experience (for positions at GS-4 and above): Examples of qualifying specialized experience include work in the fields of astronomy, physics, geophysics, chemistry, hydrology, health physics, engineering, electronics, geology, oceanography, and metallurgy.

Experience as a laboratory mechanic or in a trade or craft may be credited as general or specialized experience when the work was performed in close association with physical scientists or other technical personnel and provided intensive knowledge of appropriate scientific principles, methods, techniques, and precedents.

OR

Education and Training:

For GS-3: Successful completion of 1 year of study that included at least 6 semester hours in any combination of courses such as physical science, engineering, or any branch of mathematics, except financial and commercial mathematics.

For GS-4: Successful completion of 2 years of study that included at least 12 semester hours in any combination of courses such as those shown above for GS-3.

For GS-5: Successful completion of a full 4-year course of study leading to a bachelor's degree (a) with major study in an appropriate field of physical science, or (b) that included at least 24 semester hours in any combination of courses such as those shown above for GS-3.

GS-1320

Chemistry Series

GS-1320

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

A. Degree: physical science, life sciences, or engineering that included 30 semester hours in chemistry, supplemented by course work in mathematics through differential and integral calculus, and at least 6 semester hours of physics.

OR

B. Combination of education and experience--course work equivalent to a major as shown in A above that included at least 30 semester hours in chemistry, supplemented by course work in mathematics through differential and integral calculus, and at least 6 semester hours of physics, plus appropriate experience or additional education.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-1410

Librarian Series

GS-1412

This is an individual qualification standard.

Basic Requirements:

All librarians must meet the requirements for professional education in library science or possess equivalent experience as shown for GS-7; however, applicants typically enter at grade GS-9 on the basis of a master's degree in library science.

Some librarian positions require a knowledge of a specialized subject or field of endeavor, since many libraries are highly specialized. Such subject-matter knowledge typically covers a broad field, rather than a deep subject knowledge and competence related to a specific discipline, or a full knowledge of the state of the art. Also, since materials in libraries are often in foreign languages, some librarians must have a proficient knowledge of one or more foreign languages. For such positions, applicants must meet requirements that are directly related to the subject matter or language of the specialization. These requirements are in addition to the basic professional library science requirements that apply to all positions. However, these requirements may be included in or supplemental to those specified for all positions. The following specializations are authorized: biological, medical, social or physical sciences, education, fine arts, business and industry, humanities, law, music, engineering, and the Germanic, Slavic, Oriental, Arabic, or Romance languages.

For GS-7: Applicants must meet the requirements specified in paragraphs A, B, or C below.

- A. Completion of 1 full academic year of graduate study in library science in an accredited college or university, in addition to completion of all work required for a bachelor's degree;
- OR
- B. Completion of all the requirements for a "5th-year" bachelor's degree in library science and at least 1 year of library experience that included the performance of duties in one or more functional areas of librarianship at the GS-5 or higher grade level;
- OR
- C. A total of at least 5 years of a combination of college-level education, training, and/or experience. To qualify on this basis, the applicant must establish conclusively that the education, training, and/or experience provided a knowledge and understanding of the theories, principles, and techniques of professional librarianship; a knowledge of literature resources; and the knowledge and abilities essential for providing effective library services. Under this provision:
 - (1) Applicants must pass a subject-matter test in library science.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1410 (continued)

- (2) If an applicant qualifies on the basis of college-level education, he or she must have had at least 1 year of library experience comparable in difficulty and responsibility to that of a GS-5 or higher level library technician, technical information specialist, or subject-matter specialist, e.g., a chemist, performing library services.
- (3) If an applicant qualifies on the basis of experience alone, with no college-level education or training, he or she must have had at least 2 years of library experience comparable in difficulty and responsibility to that of a GS-5 or higher level library technician.
- (4) An applicant may qualify under any time and quality equivalent combinations of the requirements shown in paragraphs (2) and (3).
- (5) Specialized training, e.g., training at a school for library technicians or through "in-house" courses, will be allowed appropriate credit depending upon its applicability and extent.

For Librarian (appropriate specialization): Applicants must also possess specialized knowledge of a subject-matter field and/or proficiency in one or more foreign languages directly related to the position(s) being filled. When such knowledge is required for the position, an applicant's education or experience must have included or been supplemented by the requirements specified in one of the paragraphs below:

- (a) A full 4-year course of study in an accredited college or university that meets all academic requirements for a bachelor's degree that included at least 24 semester hours in the specialized field for which the applicant is being considered, e.g., physical science, biological science, social science; or that included any combination of subjects with at least 15 semester hours in a major subject (such as physics or chemistry) that is especially applicable to the position for which the applicant is being considered; or
- (b) Completion of at least 24 semester hours of legal study in an accredited law school for positions primarily concerned with providing library services in law or legislative reference; or
- (c) Four years of pertinent experience of such nature and level to provide a knowledge of the basic principles, theories, practices, techniques, terminology and expressions of the appropriate discipline or subject-matter field; an understanding of the standard methods, procedures, and techniques of research and analysis in the subject-matter field; ability to acquire additional information about the field and related fields; and some knowledge of literature resources in the field.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1410 (continued)

Such experience should be equivalent to that which would have been acquired through successful completion of a full 4-year curriculum in an accredited college or university with major study in appropriate subjects, or combination of subjects, as specified in (a) above; or legal training as specified in (b) above; *or*

(d) Any time equivalent combination of experience as described in (c) with education as described in (a) or (b) above; *or*

(e) Demonstrated ability as shown by education or experience to read or translate information from one or more foreign languages into English.

Additional Requirements for GS-9 and Above:

For GS-9:

A. Completion of all the requirements for a master's degree or 2 full academic years of graduate study in library science, in an accredited college or university;

OR

B. In addition to meeting the basic requirements for GS-7, one of the following:

(1) One year of professional experience in librarianship that included the performance, supervision, or administration of one or more major functional areas of librarianship (i.e., selection, acquisition, cataloging and classification of materials, bibliographic and readers' advisory services, reference and literature searching services, library management, systems planning, or development and strengthening of library services). Some positions are highly specialized in one functional area, and may require that the advanced experience be in the appropriate function; *or*

(2) One year of professional or advanced experience in the subject matter or language that provided the applicant with the professional technical, language, or other specialized knowledge and abilities required by the particular position. Such experience may have been gained as a specialized librarian; or as a subject specialist, professor or teacher, translator, technical writer or editor, literature searcher, indexer, or abstractor, etc. in the particular subject-matter and/or language area; *or*

(3) Completion of all the requirements for a master's degree or 2 full academic years of graduate education in a subject-matter field that is especially applicable and that provided knowledge required to perform the duties of the position.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1410 (continued)

For GS-11:

- A. In addition to meeting the basic requirements or the educational requirements described at GS-9, applicants must have had either 1 year of professional experience in librarianship or experience in a subject-matter or language area appropriate to the position equivalent to at least GS-9;
- OR
- B. Completion of all the requirements for a doctoral degree (or equivalent) or 3 full academic years of graduate education in library science;
- OR
- C. In addition to meeting the basic requirements, applicants must have completed all the requirements for a doctoral degree (Ph.D. or equivalent); or 3 full academic years of graduate education in a subject matter or language area appropriate to the position.

For GS-12 and above:

In addition to meeting the basic requirements, applicants must have 1 year of experience equivalent to at least the next lower grade level.

Combining Professional Experience and Graduate Education: Equivalent combinations of professional experience and graduate education of the types described above are acceptable at grades GS-7 through GS-11.

Evaluation of Experience and Training: At GS-9 and above, librarian positions concerned with acquisition, cataloging, or reference work are sometimes highly specialized. In filling such positions, consideration may be limited to those eligibles who have had experience in the appropriate specialization at a qualifying level of difficulty. In filling positions at any grade level that call for a knowledge of foreign languages or special subjects such as law, medicine, physical science, selection must be made from among eligibles who are qualified in these special areas.

For GS-13 through GS-15 librarians, primary consideration will be given to the extent to which applicants possess the following:

1. Understanding of the techniques and methods of library science.
2. Knowledge of a specific subject-matter field.
3. Ability to plan a library program to meet the needs of the agency.
4. Ability to carry out broad library programs.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-1410 (continued)

5. Ability to plan and coordinate the work of assistants.
6. Ability to train and develop a staff.
7. Ability to maintain good working relationships with the staff and other associates.
8. Leadership in the field of library science.

Nonqualifying Experience and Training: No credit will be given toward meeting the experience requirements for positions in this series for work in the following situations:

1. Work with collections of fiction, recreational, or other reading material where no formal cataloging or classification of material is performed.
2. Experience in wholesale or retail bookstores, circulating fiction and club libraries, or hospital record departments.
3. Experience as a library page, as a library attendant or as a clerical worker, even though the duties included such work as charging and discharging books or typing catalog cards or orders for books and materials or other clerical work in a library.
4. Training in the particular use of libraries and library facilities such as is given in orientation courses to college freshmen.

SUPERVISORY AND ADMINISTRATIVE POSITIONS

For supervisory positions, see the "Qualification Standard for Supervisory Positions" in section IV-A of this Manual. For positions concerned with administration, management, or direction of library programs, candidates must meet all other requirements for the particular grade and also show that they possess the required administrative and/or managerial ability to perform successfully the duties of such positions. Education, training, or experience of the candidate should demonstrate, e.g., ability to manage or direct a library, group of libraries, or library system; ability to plan, organize, and direct the development and execution of library programs, policies, and procedures; ability to plan or conduct management studies, public relations, and educational activities, ability to plan, develop and carry out administrative activities of the library or library system concerned with budget and finance, personnel, plant and equipment, etc.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1411

Library Technician Series

GS-1411

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-1412

Technical Information Services Series

GS-1410

This is an individual qualification standard.

Basic Requirements:

Education (for GS-5 position): A full 4-year course of study that meets all requirements for a bachelor's degree with major study in the subject-matter field of the position to be filled.

OR

Experience (for GS-5 positions): Four years of experience that provided a knowledge of the basic principles, theories, practices, techniques, and terminology of a discipline or subject-matter field; an understanding of the standard methods, procedures, and techniques of research and analysis in the subject-matter field; and where appropriate, ability to read and comprehend nontechnical material in one or more foreign languages. Such experience must have been equivalent to that which would have been gained through a 4-year college curriculum.

OR

A combination of education and experience as described above.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1412 (continued)

Additional requirements for Positions at GS-7 and Above.

In addition to meeting the basic requirements, applicants for positions at grades GS-7 and above must have the amounts of education and/or experience required for the grade level as shown in the following table.

GRADE	EDUCATION	OR	EXPERIENCE
GS-7	1 full year of graduate education related to position or superior academic achievement.		1 year equivalent to at least GS-5.
GS-9	2 full years of progressively higher level graduate education or equivalent graduate degree, e.g., LL.B. or J.D., related to the position.		1 year equivalent to at least GS-7.
GS-11	3 full years of progressively higher level graduate education or doctoral degree (Ph.d., M.D., or equivalent) related to the position.		1 year equivalent to at least GS-9.
GS-12 and above	None.		1 year equivalent to at least the next lower grade level.

Equivalent combinations of education and experience are qualifying for grade levels for which both education and experience are acceptable.

Evaluation of Specialized Experience (for positions at GS-7 and above): Experience must have demonstrated the ability to perform, supervise, or direct one or more of the functional areas of work covered by this series; to understand the concepts, theories, new developments, and co-relationship of information in related fields; and to maintain up-to-date information on the state of the art. For positions where foreign language proficiency is needed, applicants must be able to read and/or translate material in the appropriate specialized subject-matter field.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1515

Operations Research Series

GS-1515

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: in operations research; or at least 24 semester hours in a combination of operations research, mathematics, probability, statistics, mathematical logic, science, or subject-matter courses requiring substantial competence in college-level mathematics or statistics. At least 3 of the 24 semester hours must have been in calculus.

Evaluation of Education: The primary requirement of operations research work is competence in the rigorous methods of scientific inquiry and analysis rather than in the subject matter of the problem. Therefore, applicants should have sufficient knowledge of applied mathematics to understand and use the fundamental concepts and techniques of operations research methods of analysis. In addition, some positions may require knowledge of a specific subject area.

Courses acceptable for qualifying for operations research positions may have been taken in departments other than Operations Research, e.g., Engineering (usually Industrial Engineering), Science, Economics, Mathematics, Statistics, or Management Science.

The following are illustrative of acceptable courses: optimization; mathematical modeling; queueing theory; engineering; physics (except descriptive or survey courses); econometrics; psychometrics; biometrics; experimental psychology; physical chemistry; industrial process analysis; managerial economics; computer science; measurement for management; mathematical models in social phenomena; and courses that involved application of operations research techniques and methodologies to problems of management, marketing, systems design, and other specialized fields; or other comparable quantitative analysis courses for which college-level mathematics or statistics is a prerequisite. Courses in theory of probability and statistics are highly desirable, but are not specified as minimum educational requirements because to do so would possibly exclude some applicants who would otherwise be well qualified.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1529

Mathematical Statistician Series

GS-1529

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

- A. Degree: that included 24 semester hours of mathematics and statistics, of which at least 12 semester hours were in mathematics and 6 semester hours were in statistics.
- B. Combination of education and experience--at least 24 semester hours of mathematics and statistics, including at least 12 hours in mathematics and 6 hours in statistics, as shown in A above, plus appropriate experience or additional education.

Evaluation of Education: Courses acceptable toward meeting the mathematics course requirement of paragraphs A or B above must have included at least four of the following: differential calculus, integral calculus, advanced calculus, theory of equations, vector analysis, advanced algebra, linear algebra, mathematical logic, differential equations, or any other advanced course in mathematics for which one of these was a prerequisite. Courses in mathematical statistics or probability theory with a prerequisite of elementary calculus or more advanced courses will be accepted toward meeting the mathematics requirements, with the provisions that the same course cannot be counted toward both the mathematics and the statistics requirement.

Evaluation of Experience: The experience offered in combination with educational courses to meet the requirements in paragraph B above should include evidence of statistical work such as (a) sampling, (b) collecting, computing, and analyzing statistical data, and (c) applying known statistical techniques to data such as measurement of central tendency, dispersion, skewness, sampling error, simple and multiple correlation, analysis of variance, and tests of significance.

Without other indications of statistical experience, work required in the processing of numerical or quantified information by other than statistical methods is not considered appropriate qualifying experience. Examples of such nonqualifying work include statistical clerical work; statistical drafting; calculation of totals, averages, percentages, or other arithmetic summations; preparation of simple tables or charts; or verification of data by simple comparison or proofreading.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1530

Statistician Series

GS-1530

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

- A. Degree: that included 15 semester hours in statistics (or in mathematics and statistics, provided at least 6 semester hours were in statistics), and 9 additional semester hours in one or more of the following: physical or biological sciences, medicine, education, or engineering; or in the social sciences including demography, history, economics, social welfare, geography, international relations, social or cultural anthropology, health sociology, political science, public administration, psychology, etc. Credit toward meeting statistical course requirements should be given for courses in which 50 percent of the course content appears to be statistical methods, e.g., courses that included studies in research methods in psychology or economics such as tests and measurements or business cycles, or courses in methods of processing mass statistical data such as tabulating methods or electronic data processing.

OR

- B. Combination of education and experience--courses as shown in A above, plus appropriate experience or additional education. The experience should have included a full range of professional statistical work such as (a) sampling, (b) collecting, computing, and analyzing statistical data, and (c) applying statistical techniques such as measurement of central tendency, dispersion, skewness, sampling error, simple and multiple correlation, analysis of variance, and tests of significance.

GS-1531

Statistical Assistant Series

GS-1531

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1550

Computer Science Series

GS-1550

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: with 30 semester hours in a combination of mathematics, statistics, and computer science. At least 15 of the 30 semester hours must have been in any combination of statistics and mathematics that included differential and integral calculus.

Evaluation of Education: Applicants should have sufficient knowledge of statistics and mathematics, as well as other subjects, to understand the fundamental concepts and techniques of computer science. Courses designed to provide an introduction to computer science techniques and methodologies, to problems of system design, and other specialized fields are acceptable. Courses or experience in teaching elementary, business, or shop mathematics are not acceptable.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1601

General Facilities and Equipment Series

GS-1601

This is an individual qualification standard.

EXPERIENCE, EDUCATION, AND TRAINING REQUIREMENTS

The following table shows the amounts of experience, education, and/or training required to qualify for positions covered by this standard.

Grade	EXPERIENCE		OR	EDUCATION/TRAINING
	General	Specialized		
GS-1	None.	None.		None.
GS-2	3 months.	None.		High school graduation or equivalent.
GS-3	6 months.	None.		1 year above high school with 6 semester hours of related courses. Also, see section on "Training" below.
GS-4	6 months.	6 months.		2 years above high school with 12 semester hours of related courses. Also, see section on "Training" below.
GS-5	None.	1 year equivalent to at least GS-4.		4 years above high school leading to a bachelor's degree with major study or 24 semester hours of course work in a related field. Also, see section on "Training" below.
GS-6 and above	None.	1 year equivalent to at least next lower grade level in normal line of progression.		None.

Equivalent combinations of experience and education/training are qualifying for all grade levels for which both experience and education/training are acceptable.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1601 (continued)

EXPERIENCE

General Experience (for positions at GS-4 and below): Experience that provided familiarity with plant or maintenance work; or the opportunity to read engineering drawings and specifications, use test instruments, make computations, or keep maintenance records.

Examples of qualifying general experience include:

- Apprentice in a construction or maintenance trade.
- Operator of construction or maintenance equipment.
- Aid to a construction inspector or representative.
- Drafting, engineering, or architectural aid.

Specialized Experience (for positions at GS-4 and above): Experience that demonstrated the KSAs to perform the work of the position to be filled. Some positions may require specialized knowledge of particular types of mechanical systems or structural equipment. Examples of qualifying specialized experience include work such as scheduling and recording production activities or overseeing trades and crafts work.

OR

EDUCATION/TRAINING

Education (for positions at GS-5 and below): Successfully completed education in an accredited college or university is qualifying, provided that it included major study or course work at the rate of 6 semester hours per year in one or a combination of the following fields: engineering or industrial technology, construction, drafting, surveying, physical science, mathematics, or other fields related to the position to be filled. A full 4-year course of study leading to a bachelor's degree with major study or 24 semester hours of course work in such fields is qualifying for GS-5.

Training (for positions at GS-5 and below): Successfully completed training in fields related to the position to be filled, other than that obtained in a college or university, as indicated above, such as in vocational or military training programs, is creditable on a month-for-month basis.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1640

Facility Management Series

GS-1640

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--engineering, industrial arts, property management, or business administration.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided a knowledge of the practices and procedures related to property management, maintenance, materials requirements, and building operation and repair. This experience may have been gained in work such as budget or report preparation, maintenance of property and financial records, or trades or crafts work requiring technical knowledge or judgment.

Specialized Experience (for positions above GS-5): Examples of qualifying specialized experience include:

- Managing a maintenance program for office or apartment building complexes, hospitals, recreation facilities, military, or other special-purpose installations, including planning maintenance activities, and developing preventive maintenance programs.
- Conducting surveillance activities over construction and maintenance operations performed by a variety of private contractors, including reviewing project plans and specifications for workability, informing contractors of construction and reporting requirements, and supervising operations for conformance with project plans.
- Performing maintenance or construction work, including estimating material and labor costs for a variety of construction or maintenance projects (such as construction or maintenance of brick, frame, structural steel, reinforced concrete, and other type structures ranging from one- or two-story buildings to larger structures), directing actual work operations, and maintaining appropriate contacts with the organization funding the project.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1670

Equipment Specialist Series

GS-1670

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate Education: Major study--any field of study in an accredited college or university.

Graduate Education: Major study--fields related to the position to be filled.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided a knowledge of the characteristics, uses, and properties of equipment. This experience may have been gained in trades or crafts, engineering technician, production control, inspection, or other work related to the specialization of the position to be filled.

Technical school may be credited as general experience in accordance with the following criteria:

- Full-time resident study in a technical institute above the high school or trade school level on a month-for-month basis
- Completion of a full 4-year curriculum in a technical or vocational high school for up to 6 months of general experience.
- Completion of a resident trade school course of at least 1 year in the manufacture, repair, or maintenance of equipment for up to 1 year of general experience.

Specialized Experience (for positions above GS-5): Examples of qualifying specialized experience include:

- Working as a skilled mechanic or maintenance worker, sales or service engineer, or planner or estimator in a technical group dealing with manufacture, utilization, repair, or operation of equipment.
- Reviewing and applying technical specifications and requirements.
- Analyzing equipment and forecasting spare parts requirements.
- Reading and interpreting change orders, equipment requisitions, shop orders, and work orders.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1670 (continued)

- Analyzing contract specifications and examining pertinent equipment to determine if specifications are met.
- Analyzing or supervising maintenance, repair, or production operations to determine methods of improvement.

GS-1701

General Education and Training Series

GS-1701

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

A. Degree: that included or was supplemented by major study in education or in a subject-matter field appropriate to the position.

OR

B. Combination of education and experience--courses equivalent to a major in education, or in a subject-matter field appropriate to the position, plus appropriate experience or additional course work that provided knowledge comparable to that normally acquired through the successful completion of the 4-year course of study described in A above.

Evaluation of Experience: Some positions appropriately classifiable in this series involve work in connection with grants or similar funding activities to further educational progress. For such positions, experience gained in an occupational area similar or closely related to the position is qualifying experience, provided such experience involved judgment of a kind and level of difficulty and responsibility essential to successful performance in the position to be filled.

GS-1702

**Education and Training Technician Series
One-Grade Interval Positions**

GS-1702

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-1702

**Education and Training Technician Series
Two-Grade Interval Positions**

GS-1702

Use the "Group Coverage Qualification Standard for Administrative and Management Positions."

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-1710

Education and Vocation Training Series

GS-1710

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements:

For Teaching Positions:

- A. Degree: that included or was supplemented by supervised student teaching, and at least one course in each of the following areas: general psychology, human development, history and/or philosophy of education, and teaching methods at the learning level of the position to be filled, i.e., elementary or secondary learning level. For secondary school teaching positions, applicants must also have had at least 24 semester hours (or the equivalent) of course work in each of the principal fields of instruction.
- B. Combination of education and experience--Applicants who have completed a full 4-year course of study in an accredited college or university leading to a bachelor's degree but who do not meet the specific course requirements shown above meet minimum qualification requirements if they have completed at least 1 full academic year of professional teaching experience at the elementary or secondary school level as appropriate to the position to be filled. Professional teaching experience is defined as full and primary responsibility for the instruction of assigned students under general supervision in a recognized or accredited school or institution. This includes responsibility for preparation and presentation of lessons and the evaluation of students' progress throughout the learning period, including a determination of the students' success or failure according to established criteria.
- OR**
- C. Combination of education and National Teacher Examination (NTE) scores--Applicants who have completed a full 4-year course of study in an accredited college or university leading to a bachelor's degree but who do not meet the specific course requirements shown above meet minimum qualification requirements if they have obtained a score of 660 in each of the NTE core examinations and any specialty area examinations appropriate to the position to be filled.

Note: For special education teaching positions, applicants must meet the degree and course requirements as shown in paragraph A above and, in addition, must have had at least 24 semester hours (or the equivalent) of course work in special education that included at least one course covering the teaching of exceptional students and courses in the appropriate field(s) of specialization.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1710 (continued)

For School Administration Positions:

A. Degree: that was supplemented by professional teaching or staff experience at the elementary or secondary levels that demonstrated thorough knowledge of the operation of educational programs at the elementary or secondary levels, and completion of at least one semester or the equivalent of graduate-level course work in school administration or school management, and/or curriculum development.

OR

B. Possession of a permanent license or certificate for school administrator (either elementary or secondary) issued by a State, the District of Columbia, or one of the territories or possessions of the U.S.

GS-1712

Training Instruction Series

GS-1712

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--education or subject area related to the position to be filled.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided evidence of the ability to instruct students in the use of equipment, principles, or practices of the subject or occupation. This experience may have been gained as a teacher or instructor; in on-the-job supervision or instruction of subordinates or fellow workers; or in work involving application of the principles, practices, and techniques of the occupation or subject-matter field of the position to be filled.

Specialized Experience (for positions above GS-5): Experience that demonstrated a practical knowledge of the subject area of the position and of the methods and techniques of instruction.

- Reading, interpreting, and applying technical data such as blueprints, engineering drawings, product specifications, or technical manuals.
- Examples of qualifying specialized experience include:
- Teaching or instructing in an adult education program, secondary school, college, military installation, or industrial establishment in the appropriate field(s).

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-1712 (continued)

- Supervising or administering a training program.
- Development of review of training/course materials, aids, devices, etc., and evaluation of training results.
- Work in the occupation or subject-matter field of the position to be filled that required training or instructing others on a regular basis.

GS-1715

Vocational Rehabilitation Series

GS-1715

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--vocational rehabilitation, vocational or educational counseling, or other fields related to the position.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided a knowledge of training practices, techniques, and requirements as they relate to vocational development or rehabilitation.

Specialized Experience (for positions above GS-5): Examples of qualifying specialized experience include:

- Work that required obtaining and applying occupational information for people with disabilities, knowledge of the interrelationships of the involved professional and specialist services, and skill in employing the methodology and techniques of counseling to motivate and encourage individuals served by the program.
- Experience that demonstrated knowledge of the vocational rehabilitation problems characteristic of the disabled, including familiarity with available resources and skill in identifying, evaluating, and making effective use of such resources to serve individuals with disabilities; or of the disadvantaged, including knowledge of adjustment problems of the educationally or culturally disadvantaged, familiarity with available adult education and training resources, and ability to recognize problem areas needing special attention.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1715 (continued)

- Experience in vocational guidance or teaching in a recognized vocational rehabilitation program or school, developmental or supervisory work in programs of vocational rehabilitation or training programs for the disadvantaged, or personnel or employment placement work that provided extensive knowledge of the training and adjustment requirements necessary to place persons having disabilities or social adjustment problems.

GS-1725

Public Health Educator Series

GS-1725

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: health education, health management, education, sociology, community development, social work, or educational psychology.

Evaluation of Education and Experience: For positions with the Public Health Service at GS-9 and above, at least 1 academic year of the total amount of graduate study required must have been in a school of public health accredited by the American Public Health Association. Professional experience must have been in the field of public health education, community organization, or social work. Combinations of such graduate level education and professional experience are also acceptable.

Specialized experience for all positions in this series may have been gained working with State and local health departments, with national and local voluntary agencies, organizing community groups to study health problems and methods of disease prevention, coordinating mass health programs, and evaluating and improving health education programs.

GS-1750

Instructional Systems Series

GS-1750

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Professional and Scientific Positions."

Basic Requirements: Degree: that included or was supplemented by at least 24 semester hours appropriate to the work of the position to be filled. The course work must have included study in at least four of the following five areas:

- (1) *Learning theory, psychology of learning, educational psychology:* Study of learning theories as they relate to the systematic design, development, and validation of instructional material.

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-1750 (continued)

- (2) *Instructional design practices:* Study of the principles and techniques used in designing training programs, developing design strategy and models, and applying design methods to the improvement of instructional effectiveness.
- (3) *Educational evaluation:* Study of the techniques for evaluating the effectiveness of instructional/educational programs, including developing written and performance tests and survey instruments, and determining reliability and validity of evaluation instruments.
- (4) *Instructional product development:* Study of the techniques appropriate for developing training materials, including identifying learner characteristics, specifying objectives, applying training strategy, validating training materials, and evaluating training.
- (5) *Computers in education and training:* Study of the application of computers in education and training, including selecting appropriate computer software.

Some positions in this series may specialize in one or two functional areas, where more specific academic preparation may be necessary. For such positions, agencies may require course work in the applicable functional area(s) as part of the above-required 24 semester hours.

GS-1910

Quality Assurance Series

GS-1910

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--quality assurance, statistics, mathematics, production management, industrial management, computer science, engineering, engineering technology, physical sciences, textiles, or other fields related to the position.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience in fields such as quality control, quality inspection, contracting and purchasing, supply and storage, industrial or production planning, research and engineering, maintenance, and test and evaluation that provided (1) familiarity with quality assurance or related work, (2) pertinent product or process knowledge and skill, (3) ability to interpret and apply contract requirements and engineering specifications, and (4) skill in dealing with others in person-to-person work relationships.

QUALIFICATION STANDARDS OPERATING MANUAL

GS-1910 (continued)

Specialized Experience (for positions above GS-5): Experience that demonstrated a practical knowledge in monitoring, controlling, or maintaining the quality of products or services in quality assurance, procurement, inspection, production, or related areas. Examples include:

- Reviewing production activities and capabilities in light of contract quality requirements.
- Reviewing written quality or inspection procedures for adequacy, and evaluating the implementation and effectiveness of quality/inspection systems, including sampling plans.
- Analyzing quality data to detect unsatisfactory trends or weaknesses in the quality/inspection system.
- Verifying by test or inspection, using sampling inspection or intensive product inspection techniques, that products comply with requirements prior to acceptance.
- Identifying inadequacies and requesting corrective action.
- Computing data, summarizing results, and preparing reports or charts depicting pertinent relationships using statistical methods.
- Investigating customer complaints and deficiency reports, and providing identification of causes to appropriate authorities.
- Reading, interpreting, and applying technical data such as blueprints, engineering drawings, product specifications, or technical manuals.
- Reviewing and evaluating supply systems operations and procedures through periodic audits and surveillance inspections.

GS-2001

General Supply Series

GS-2001

Use the "Group Coverage Qualification Standard for Administrative and Management Positions."

GS-2003

Supply Program Management Series

GS-2003

Use the "Group Coverage Qualification Standard for Administrative and Management Positions."

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GS-2005 **Supply Clerical and Technician Series** **GS-2005**

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-2010 **Inventory Management Series** **GS-2010**

Use the "Group Coverage Qualification Standard for Administrative and Management Positions."

GS-2101 **Transportation Specialist Series** **GS-2101**

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--accounting, business administration, business or commercial law, commerce, economics, engineering, finance, industrial management, statistics, traffic management, transportation, motor mechanics, or other fields related to the position.

OR

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided a general knowledge and understanding of traffic or transportation programs or operations.

Specialized Experience (for positions above GS-5): Experience that demonstrated a knowledge of the transportation function(s) of the position to be filled.

GS-2102 **Transportation Clerk and Assistant Series** **GS-2102**

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

QUALIFICATION STANDARDS OPERATING MANUAL

GS-2130

Traffic Management Series

GS-2130

Use these individual occupational requirements in conjunction with the "Group Coverage Qualification Standard for Administrative and Management Positions."

EDUCATION

Undergraduate and Graduate Education: Major study--accounting, business administration, business or commercial law, commerce, economics, engineering, finance, industrial management, statistics, traffic management, transportation, motor mechanics, or other fields related to the position.

EXPERIENCE

General Experience (for GS-5 positions): Experience that provided a general knowledge and understanding of traffic or transportation programs or operations.

Specialized Experience (for positions above GS-5): Examples of qualifying specialized experience include:

- Managing or participating in managing a transportation or traffic program involving (1) operating a transport or traffic system to move passengers or commodities of an organization when there is accountability for operating costs, (2) operating a transportation system to provide common carrier types of services to shippers, and (3) procuring common or other carriers and other transportation services to move an organization's personnel, freight, and/or other commodities.
- Conducting or participating in conducting surveys and studies of the traffic management function, operating methods, procedures, and performance.
- Making presentations on traffic matters before Federal, State, or local regulatory bodies.
- Performing loss and damage prevention work when this included responsibilities such as policy and procedures formulation and studies of traffic operations and services.
- Negotiating with carriers and/or regulatory bodies on questions of rates, transit privileges and charges, special services and charges thereof, and classification of commodities.
- Providing advisory service involving commodity analysis from the transportation standpoint.

OR

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QUALIFICATION STANDARDS OPERATING MANUAL

GS-2130 (continued)

CERTIFICATE

Possession of a certificate as Certified Member, American Society of Transportation and Logistics meets the requirements for GS-5. Persons with such certificates may also qualify for higher grade levels based on their education and/or experience.

GS-2131

Freight Rate Series

GS-2131

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."

GS-2151

Dispatching Series

GS-2151

Use the "Group Coverage Qualification Standard for Clerical and Administrative Support Positions."



**INDIAN HEALTH SERVICE
EXCEPTED SERVICE QUALIFICATION STANDARDS
QUALIFICATION STANDARDS OPERATING MANUAL**

SECTION V. MEDICAL REQUIREMENTS

This section of the Manual provides a summary of the occupational series that have medical requirements. The 5 CFR 339, "Medical Qualification Determinations," contains the basic guidance on the establishment of medical standards and physical requirements for Federal civilian positions. Section II of this Manual, "General Policies and Instructions," includes information about the general medical requirements for most positions.

Applicants and employees cannot be disqualified arbitrarily on the basis of medical standards, physical requirements, fitness tests, or other criteria that do not relate specifically to job performance. In addition, reasonable accommodation will be provided to persons with disabilities who demonstrate that they can perform the work of the position to be filled.

In accordance with 5 CFR 339, the IHS has the authority to establish medical standards for positions for which they are the predominant employer, i.e., have 50 percent or more of the employees in the occupational series. In establishing such standards, provisions in Chapter 339 pertaining to job-relatedness, reasonable accommodation, etc., must be followed.

Generally, when medical requirements have been established for all positions within an occupational series or for positions that are separately identifiable in section IV.B. of this Manual, those requirements are included in the individual qualification standard or individual occupational requirements.

The following list is considered current as of the date of the transmittal sheet (TS) at the bottom of this page. It will be updated periodically as changes occur or additional information is reported.

GS-085	Security Guard Series
GS-660	Pharmacist Series
GS-680	Dental Officer Series
GS-1811	Criminal Investigating Series

In addition, some medical requirements apply to positions that have unique duties, require motor vehicle operation, or involve work performed in a particular environment. Information about such requirements is provided to applicants by the employing agency.



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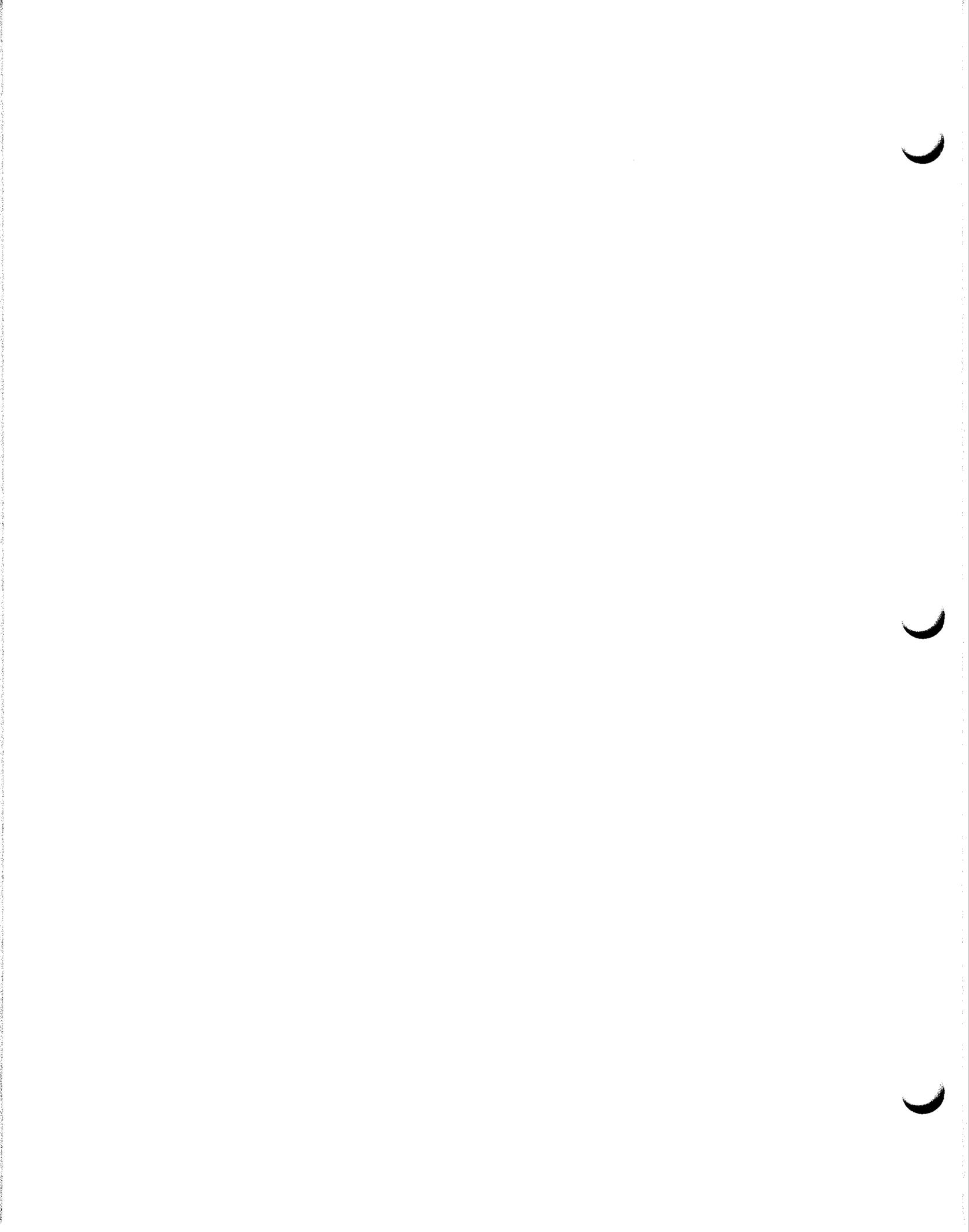
SECTION VI. TECHNICAL NOTES AND UPDATES

This section of the Manual is included to highlight special staffing requirements or provisions, and to offer a central location for filing periodic updates of qualifications information prior to issuance of printed Manual transmittals. Regular users of the Manual may also want to retain their own notes here for ready reference when questions arise about recurring issues.

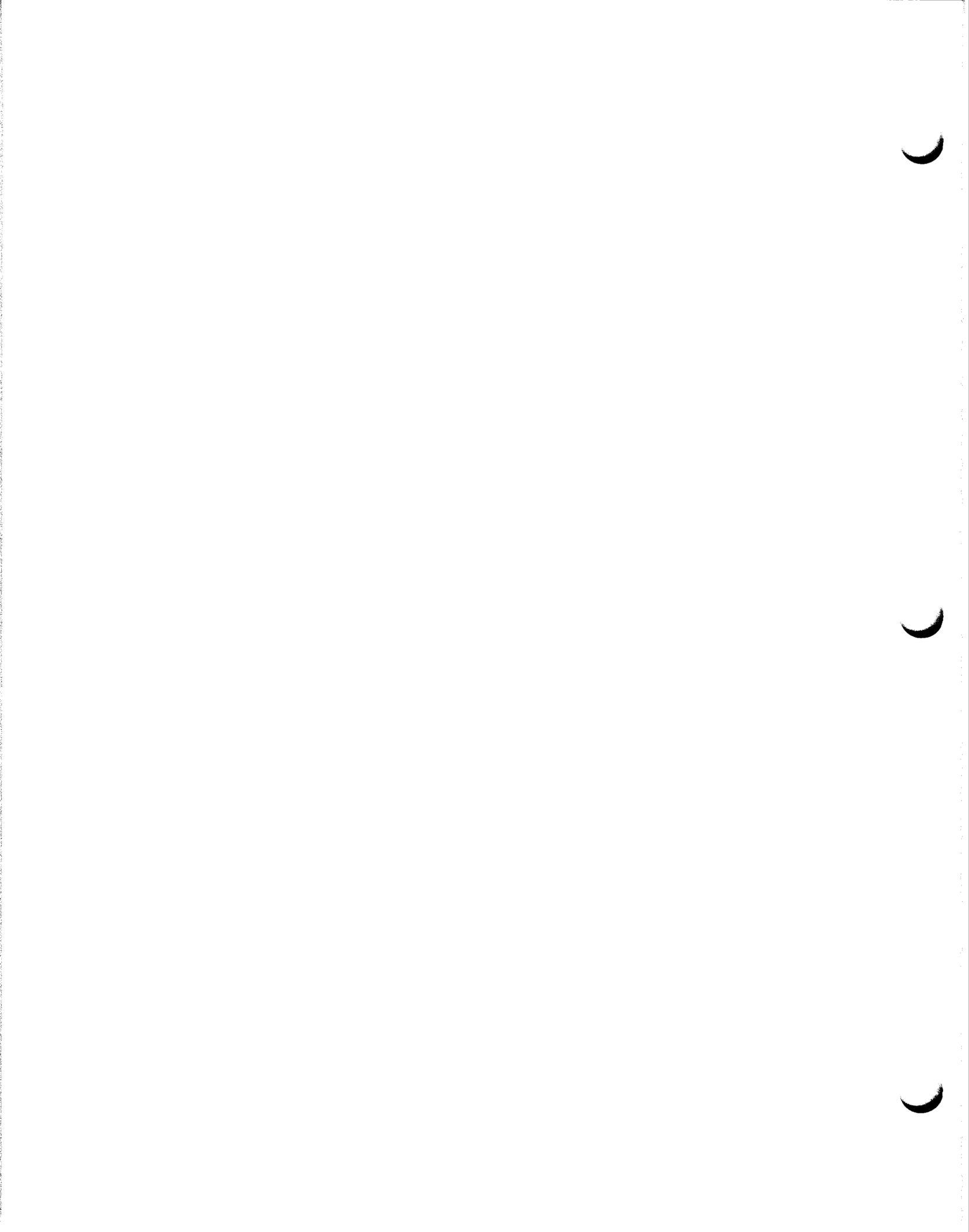
Special Staffing Situations

Attorney Positions (GS-905 and GS-1222): The USOPM is prohibited by law from examining for or establishing qualification requirements for attorney positions. Therefore, Federal agencies that employ attorneys, such as IHS, set their own requirements.

Maximum Entry Age: Under title 5 U.S.C. 3307, the IHS is authorized to establish a maximum entry age. There are no positions in the IHS with a maximum age limit.



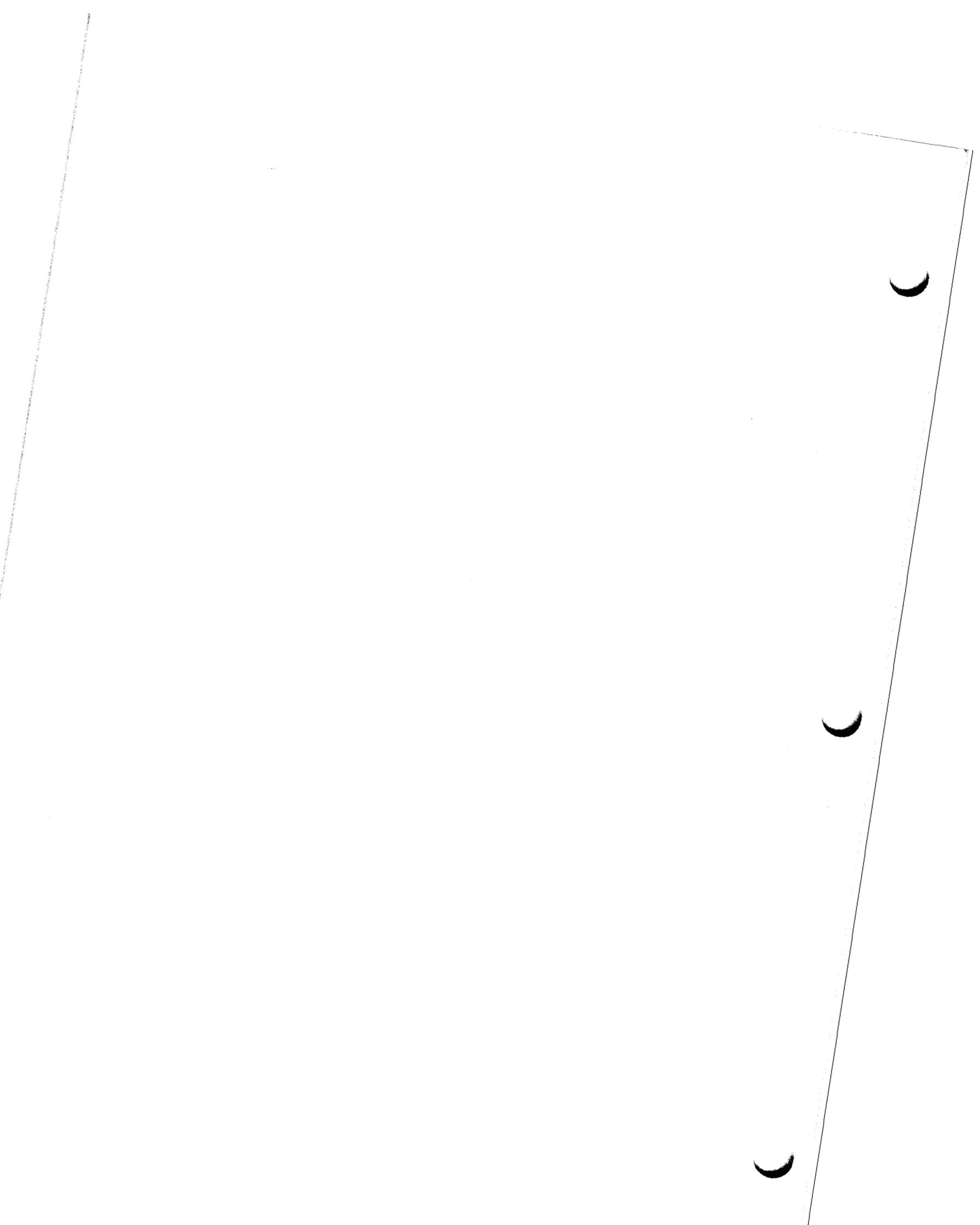
**INDIAN HEALTH SERVICE
EXCEPTED SERVICE QUALIFICATION STANDARDS
QUALIFICATION STANDARDS OPERATING MANUAL
SECTION VII. TRANSMITTAL SHEETS**



**PART II - TRADES AND
LABOR JOB
QUALIFICATION
SYSTEM**

**Job Qualification System
for
Trades and Labor Occupations
for
IHS Excepted Service
Positions**

**TS-17
September 1999**



**JOB QUALIFICATION SYSTEM
FOR
TRADES AND LABOR OCCUPATIONS
FOR
IHS EXCEPTED SERVICE QUALIFICATION STANDARDS**

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JOB QUALIFICATION SYSTEM FOR TRADES AND LABOR OCCUPATIONS

I. INTRODUCTION

The United States Office of Personnel Management (USOPM) Job qualification System for Trades and Labor Occupations, Handbook X-118C, is adopted for use in the Excepted Service of the Indian Health Service (IHS) with the additional provisions indicated under the Implementing the Standard section below.

II. EXPLANATORY INFORMATION

The qualification standards for positions in the trades and labor occupations are based on a job analysis of each occupation to determine the knowledge, skills, abilities, and other characteristics (KSAOs) needed to perform the duties of the position. How the applicant gained the KSAOs or the length of time in the line of work is far less important than having the required ability or the potential to do the job. In this qualification system, there are no education or length of experience requirements that could impede American Indians and Alaska Natives (AI/AN) from consideration for positions. As long as the applicant has the required KSAOs, they are deemed qualified. Ninety-three percent of the IHS employees in trades and labor occupations are AI/AN. Hence, there does not appear to be any adverse impact upon AI/AN employment resulting from the use of these standards.

The identified KSAOs are developed into job elements and then a crediting plan is developed to measure the qualifications of the applicants in relation to each job element. One of the elements considered essential to performance in the occupation is designated as a "screening" element. This element measures the most critical ability needed to successfully perform the duties of the job. If applicants clearly fail to meet the minimum requirements of the screening element, they can be rated ineligible without further review of their applications.

III. IMPLEMENTING THE STANDARD

In implementing the USOPM Job Qualification System for Trades and Labor Occupations in the IHS excepted service, the following provisions apply:

- 1. The screening element listed in the handbook for each occupation may be deleted for excepted service positions but only with justification and the approval of the Director of the Indian Health Service. Screening elements are critical to success in the particular job and, depending on the kind and level of the position, are usually defined in terms of the ability to do the work of the position under normal supervision, dependability and reliability, or aptitude and interest for learning trade theory and practice. Since screening elements are so basic, there should be few requests for deletion. If screening elements are approved for deletion for excepted service positions, they need not be**

JOB QUALIFICATION SYSTEM FOR TRADES AND LABOR OCCUPATIONS

deleted for positions in the competitive service. Screening elements cannot be deleted for competitive service positions without the approval of USOPM.

- 2. Test requirements do not apply for positions in the excepted service of the IHS.**

IV. OPTIONAL PROVISIONS

There may be a few positions for which the following job elements are required for successful performance in the job:

- a. Ability to speak and interpret the language of the AI/AN population to be served.**
- b. Knowledge of the culture, customs, and beliefs of the AI/AN population to be served.**

As indicated above, these elements should be used only if they are required for successful performance in the particular job to be filled but should never be used as screening elements. Given the nature of the trades and labor occupations (i.e., emphasis on trades and labor rather than communication skills), these elements will be appropriate for only a limited number of positions in particular environments.

If these elements are used as job elements in the excepted service, they must also be used in the competitive service. They should not, however, be used as screening elements for trades and labor occupations in either the excepted or competitive service.