PERSONNEL BULLETIN NO: 19-09

SUBJECT: Supplemental Qualification Standards for GS-0401 Fire Program Management

1. Purpose: This Bulletin supersedes Personnel Bulletin (PB) 07-13 and establishes clarity on the policy and procedures for evaluating qualifications for GS-0401 Fire Program Management Specialist positions within the Department of the Interior (DOI). The re-issuance of this PB provides additional guidance on interpreting the supplemental qualification standard to ensure consistency throughout all of Human Resources offices. These changes adhere to the specific GS-0401 qualification standards prescribed by the U.S. Office of Personnel Management (OPM). DOI’s Supplemental Qualification Standard was developed under the leadership of Interior, which includes Bureau of Land Management (BLM), National Park Service (NPS), Fish and Wildlife Service (FWS), Bureau of Indian Affairs (BIA), and OPM.

2. Scope: This PB applies to the Bureau of Land Management (BLM), National Park Service (NPS), Fish and Wildlife Service (FWS), Bureau of Indian Affairs (BIA) in DOI.


4. Policy: This supplemental qualification standard is to be used in conjunction with the authorities and references cited above in paragraph 3 and will be used for competitive and non-competitive actions.

Summary of Changes: The following Supplemental Qualification Standard was updated with the following changes:

- Updated naming convention (i.e. General Schedule Qualifications Standards).
- Adjusted format to make document flow easier.
- Added GS-5 grade level specialized experience.
- Added definition for Specialized Experience Requirements, Superior Academic Achievement, and Graduate Education in Lieu of an Advanced Degree.
- Added table format for additional specialized experience, and education requirements.
- Updated examples of specialized experience requirements at grades GS-07 through
Supervisors consult with HR on specialized experience requirements for GS-12 and above grade levels.

No applicant may be placed in a position covered by the 0401 Qualification Standard for Fire Program Management Specialist without meeting the requirements outlined in the supplemental qualification standard and GS 0401 Guide Policy Interpretation Attachments.

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![Signature]

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Director, Office of Human Capital  
Deputy Chief Human Capital Officer

Attachments
Supplemental Qualification Standard for
GS-401 Fire Program Management Positions
within

The U.S. Department of the Interior (DOI) - Bureau of Indian Affairs (BIA), Bureau of Land Management (BLM), Fish and Wildlife Service (FWS), and National Park Service (NPS)

Revised as of 07/29/2019

This document supplements the requirements outlined in the General Schedule Qualification Standards published by the Office of Personnel Management (OPM) for General Natural Resources Management and Biological Sciences Series, 0401 occupational series and must be used in conjunction with those requirements. This document provides guidance, internal to the agencies listed above, and it is intended for use when evaluating qualifications for Fire Management Specialist positions. Additional or clarifying information can be obtained from OPM’s Operating Manual. This internal supplemental qualification standard is not meant to change or substitute for those requirements prescribed by OPM.

Basic Qualification Requirements: The OPM Qualification Standard for the 0401 series includes requirements as stated below. It is the applicant’s responsibility to provide documentation or proof that he or she has met the applicable educational provisions described in this supplemental standard. No applicant may be placed in a position covered by the 0401 Qualification Standard for Fire Program Management without meeting A or B below.

A. Degree: Biological sciences, agriculture, natural resource management, chemistry or related discipline 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 which may be defined as at least 24 semester hours in biological sciences, natural resources, wildland fire management, forestry, or agriculture equivalent to a major field of study, plus appropriate experience or additional education that is comparable to that normally acquired through successful completion of a full 4-year course of study in the biological sciences, agriculture, or natural resources.

The quality of the combination of education and experience must be sufficient to demonstrate that the applicant possesses the knowledge, skills, and abilities 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.
**Documentation of 401 series requirements:** OPM revised the Operating Manual for Qualifications Standards for General Schedule Positions, Part E.4 – E.4(a) of the General Policies and Instructions effective February 15, 2005, to address the “Acceptability of Higher Education for Meeting the Minimum Qualification Requirements.” OPM revised the education requirement provisions based on Congressional, Department of Education, and OPM concern with the employment of people in the Federal government who have college degrees from non-accredited sources. Effective February 15, 2005, the issuance of the revised OPM qualifications standard restricted qualifying education (primarily) to colleges, universities and institutions. Anyone placed in a GS-0401 series position on or after February 15, 2005, had or has met the OPM qualifications standard in place as of that date.

While this revision applies to all GS positions, it has a significant impact on positions covered by the Department’s Supplemental Standard for Fire Management Positions under the GS-0401 Fire Management series. Prior to February 15, 2005, the OPM Operating Manual for GS Positions allowed credits from the USDA Graduate School, or other institutions determined to be equivalent on the same basis as study in accredited colleges, universities or institutions. At that time National Wildfire Coordinating Group (NWCG) was determined to be an equivalent institution. NWCG qualification requirements with the provision that the employee provided appropriate documentation or proof that he or she met the applicable educational provisions and the individual was already in the GS-0401 position as of February 14, 2005.

When the original supplemental standard for Fire Management Specialist was approved on July 29, 2002, the United States Department of Agriculture and Department of the Interior worked jointly to create a draft interpretive guidance for implementation. As a result of the revision, beginning on February 15, 2005 Departmental Human Resources Offices can now credit only educational coursework that is listed on an official transcript from an accredited institution, college or university. This means that NWCG coursework, and the Technical Fire Management (TFM) coursework that is not listed on an official transcript, or equivalent documentation, cannot be used even though prior to February 15, 2005, this coursework was allowed.

Employees who met qualification requirements using NWCG courses, without academic transcripts, prior to February 15, 2005 and were either appointed, promoted, or reassigned into the GS-0401 by that date as Fire Management Specialists are not affected by these changes as long as they remain in their current positions. It must be noted that their current status under the GS-0401 standard is limited to the position and grade they currently hold. These employees must meet the combination of education and experience provisions, along with the positive education requirements for the GS-0401 series based on the new criteria if they wish to be reassigned, detailed or referred from a merit promotion certificate. The only exception would be a “career-ladder” promotion based on the competition held prior to February 15, 2005.

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1 In lieu of official transcripts from a college, university or institution, equivalent documentation is defined as a certificate or letter of completion signed by a professor, dean, or department head of an accredited college, university or institution. This certificate of letter of completion must indicate the name of the accredited college, university or institution, the name of the course, the academic level of the course (upper or lower division as indicated by the college, university or institution), and the number of semester hours awarded.
Specialized Experience Requirements: Specialized experience is that which equipped the applicant with the particular knowledge, skills, and abilities to perform successfully the duties related to fire program management. 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. See Attachment 1, “Staffing Guidance, GS-401 Fire Management Specialist” for additional information on experience and education.

The basic requirements for the 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 a related field. Positions in a related occupational field may differ significantly in the nature of the work and must be thoroughly evaluated to determine if the experience is qualifying for a GS-401 fire program management specialist.

Superior academic achievement (S.A.A.): According to the Qualification Standards for General Schedule Positions Operating Manual, this provision covers advanced trainee positions that provide opportunities for advancement upon attaining required job skills and knowledge, require no prior experience, and have work classified at two-grade intervals. The superior academic achievement provision applies to both initial appointment and in service 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.

Graduate Education in Lieu of an Advanced Degree: According to the Qualification Standards for General Schedule Positions Operating Manual, 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. It is OPM's 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 under-graduate course work as a prerequisite for pursuing an advanced degree, that undergraduate-level study should not be credited as graduate education.

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 tables below:
<table>
<thead>
<tr>
<th>Grade/Positions</th>
<th>Education</th>
<th>Specialized Experience</th>
</tr>
</thead>
</table>
| GS-7            | 1 year of graduate-level education  
| or Bachelor’s degree with Superior Academic Achievement | **One year of specialized experience equivalent to at least the GS-5 grade level is required in addition to meeting the basic qualification requirements.**  

Description of GS-05 level work experience to qualify for GS-07: Experience must demonstrate an understanding of fire behavior relative to fuels, weather, and topography and how fire affects natural and cultural resources. Examples of experience may include:

- Performed duties which provided a basic understanding of wildland fire management concepts, theories and practices including the assessment of fire effects on cultural and/or natural resources.
- Assisted other fire management staffs in the development of complex presentations; presented or conducted simple presentations of fire management concepts, topics, information.
- Researched technical reports and/or other sources to obtain information used by higher graded professionals; applies basic formulas to routine calculations;
- Participated in the development and/or implementation of wildland fire management plans. Carried out initial attack incident management strategies and tactics to meet the stated resource objectives.  

| GS-9            | Master’s (or equivalent graduate degree)  
| or 2 academic years of progressively higher level graduate education leading to a master's degree | **One year of specialized experience equivalent to at least the GS-7 grade level is required in addition to meeting the basic qualification requirements.**  

Description of GS-07 level work experience to qualify for GS-09. Experience must demonstrate an understanding of fire behavior relative to fuels, weather, and topography and how fire affects natural and cultural resources. Examples of experience may include:

- Wildland fire activities (such as planning and/or implementing prescribed fire or managing wildfires) to ensure resource objectives can be met from a fire management standpoint.
- Developing and/or implementing initial attack incident management strategies and tactics to meet the stated resource objectives.
- Implementing mitigation measures during wildland fire activities to protect sensitive habitats, endangered species, sensitive plants, or cultural values.  


| GS-11  | Ph.D. or equivalent doctoral degree  
|        | or  
|        | 3 academic years of progressively higher level graduate education leading to a Ph.D. degree |

**One year of specialized experience equivalent to at least the GS-9 grade level is required in addition to meeting the basic qualification requirements.**

Description of GS-09 level work experience to qualify for GS-11. Experience **must include** Fire Program Management elements such as described below:

- Developing, reviewing and evaluating fire management plans for ecological soundness, or consistency with land management goals and/or potentially adverse impacts to cultural and natural resources;
- Conducting field inspections before and after prescribed or wildfires to determine if resource objectives were achieved and/or to evaluate the effectiveness of actions taken; and,
- Analyzing the ecological role of fire and its use and/or exclusion, and smoke management.

In addition to the **Fire Program Management** elements listed above, appropriate experience must have included **EITHER prescribed fire/fuels management –OR- fire management operations** as described below:

**Prescribed fire/fuels management:** Examples of this type of experience may include:

- Professional forest or range inventory methods and procedures (e.g., Brown’s planar intercepts for dead and down fuels; live fuel loading assessments);
- Analysis of fuel loadings and determination of appropriate fuel treatment methods (i.e. prescribed fire, mechanical, chemical, or biological treatments);
- Land use planning and environmental compliance;
- Evaluation of prescribed burn plans or fire management plans to ensure fire containment is possible and identification of appropriate suppression contingencies if fire containment is not obtained.

**Fire management operations:** Experience in analyzing and/or applying fire management strategies in at least five of the following activities:

- Mobilization and/or dispatch coordination
- Fire prevention and education
- Training
- Logistics
- Equipment development and deployment
- Fire communication systems
- Suppression and preparedness
- Aviation
| GS-12 and above | Not applicable | One year of specialized experience equivalent to **at least the next lower grade level** is required in addition to meeting the basic qualification requirements.

**NOTE:** The supervisor of the position to be filled in consultation with an HR Staffing Specialist develops the specialized experience requirement when recruiting for positions grades GS-12 and above. |

**Other Requirements for Fire Positions:**

**Medical and Physical Requirements:** Medical and physical requirements must be met for positions that have duties that are of an arduous or hazardous nature.

**Program Oversight and Evaluation:** Bureaus and equivalent organizations will include review of the Fire Program Management positions under the 0401 series in their internal personnel management evaluation programs.
Policy Interpretation of the Supplemental Qualification Standard for the GS-0401 Fire Management Specialist

This is to be used in conjunction with the GS-0401 Fire Management Specialist Standard.

Basic Requirements:

A. Education: Successful completion of a full 4-year course of study in an accredited college or university leading to a bachelor’s or higher degree in biological sciences, agriculture, natural resource management, or related discipline appropriate to the position being filled. The following majors are creditable:

1. Disciplines identified in the 400 Professional and Scientific Series Standard for General Biological Science/Natural Sciences which may be used to meet the basic requirement:

   Agriculture          Agricultural Extension
   Agronomy             Animal Science
   Biochemistry          Biological Sciences (General)
   Biometrics (includes Applied Forestry*) Botany
   Ecology              Entomology
   Fishery Biology (includes marine/aquatic) Forestry
   General Fish & Wildlife Administration Genetics
   Horticulture          Microbiology
   Natural Resources Management Pharmacology
   Physiology            Plant Pathology
   Plant Physiology      Plant Protection & Quarantine
   Rangeland Management  Soil Conservation
   Soil Science          Toxicology
   Wildlife Biology      Wildlife Refuge Management
   Zoology

2. Natural Resource related disciplines as determined by Fire Management subject matter experts to meet the Natural Science Group GS-400 which may be used to meet the basic requirement:

   Chemistry          Earth Sciences
   Environmental Sciences¹ Geology
   Hydrology           Meteorology
   Outdoor Recreation² Physical Geography³

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¹ An Environmental Sciences degree does not equate to an environmental or natural resources policy degree
² Natural Resources emphasis
³ GIS is creditable when identified as Biometrics, Applied Forestry, Natural Resources, e.g., FOR xxx, Survey of GIS in Natural Resources; GEOG xxx Hydrologic Application of GIS & Remote Sensing; NR xxx Advanced GIS Applications in Fire Ecology & Management. It is not creditable if the course is designated as part of a discipline not listed above, e.g., Computer Science course CS xxx, Inter Arcview.
Physics

Watershed Management

Fire Management/Fire Science

A graduate degree in any of the disciplines listed above will meet basic qualifications regardless of the undergraduate degree. All disciplines in A.1 above were obtained from series listed in the Biological Sciences, GS-0401 or within an individual occupational series. For example, natural resources management was taken from the GS-0480, Fish and Wildlife Administration Series, and GS-0454-Rangeland Management Series.

Subject matter experts from the five wildland firefighting agencies developed A.2 related disciplines. Physical sciences are mentioned throughout the individual occupational series for the 0400 family. In the draft Job Family Standard for Professional Work in the Natural Sciences Group, GS-0400, the term “natural resources” is defined as “all the things in our physical environment that we use to meet our needs and wants.” It also quotes: “The most commonly thought of natural resources are metals and nonmetals, energy sources, water, land, food, wild plants and animals, and soils. Work in natural resources sciences spans a broad range of disciplines and specialty areas. Some natural resource scientists are engaged in broad research and development activities that, taken singly, would be classifiable to:

- A specific professional biological or agricultural science within the GS-0400 job family’ or
- A closely related science in another job family, e.g. physics.

A.2. Individual Occupational Series:

- 0401 includes chemistry
- 0470 includes physical and earth sciences
- 0480 includes chemistry

B. Combination of Education and Experience

1. Education Equivalent: The OPM Qualification Standards for General Schedule Positions, Group Coverage Qualification Standards for Professional and Scientific Positions, requires that an applicant possess a core of educational credit. This course work plus additional education and/or experience meets the qualifications for a GS-0401 under paragraph B of the individual occupational requirements. Universities regularly credit continuing education coursework even when the student is not enrolled in a degree program. These courses go through the same strenuous curriculum review as general coursework. The following criteria will be used to determine eligibility for all college/university credits:

   1. The course is from an accredited university. To verify a particular school’s accreditation status go to https://www.ed.gov/accreditation

   2. The course is offered in a discipline as identified in A. under Basic Requirements. It is the responsibility of the college/university to determine the discipline; the Human Resources Staff will credit all courses on a transcript or equivalent documentation in disciplines defined in A. toward the GS-0401 Fire Management Specialist series.
Examples, as creditable:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title (Discipline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS xxx</td>
<td>Environmental Hydrology (Environmental Science)</td>
</tr>
<tr>
<td>Soil xxx</td>
<td>Soil &amp; Env. Physics (Soil Science)</td>
</tr>
<tr>
<td>FOR xxx</td>
<td>Env. Conservation (Forestry)</td>
</tr>
<tr>
<td>WFSC xxx</td>
<td>Wildlife and Changing Environment (Wildlife Science)</td>
</tr>
<tr>
<td>FW xxx</td>
<td>Survey of GIS in Nat. Resources (Fish &amp; Wildlife)</td>
</tr>
<tr>
<td>GEOG xxx</td>
<td>Decision-making NR Mgt. (Geography)</td>
</tr>
<tr>
<td>F xxx</td>
<td>Decision Methods for Fire Managers (Forestry)</td>
</tr>
<tr>
<td>FOR xxx</td>
<td>Professional Writing for Natural Resources Sciences (Forestry emphasis)</td>
</tr>
</tbody>
</table>

Examples, not creditable:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title (Discipline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POS xxx</td>
<td>Environmental Policy (Political Science)</td>
</tr>
<tr>
<td>SOC xxx</td>
<td>Environment &amp; Society (Sociology)</td>
</tr>
<tr>
<td>HIST xxx</td>
<td>American Env. History (History)</td>
</tr>
<tr>
<td>STAT xxx</td>
<td>Data Analysis &amp; Regression (Statistics)</td>
</tr>
<tr>
<td>ECON xxx</td>
<td>Natural Resources Economics (Economics)</td>
</tr>
<tr>
<td>ENG xxx</td>
<td>Professional Writing for Natural Resources Sciences (English emphasis)</td>
</tr>
</tbody>
</table>

AND

3. Documentation verifying the coursework was completed and met accreditation and discipline (items B.1.a.1, B.1.a.2 above). The OPM Operating Manual for Qualification Standards for General Schedule Positions, General Policies and Instructions, Part E.4 describes proof as: an official transcript; statement from the institution’s registrar, dean, or other appropriate official; or equivalent documentation.

2. Specialized Experience

Specialized experience is well defined in the Supplemental Qualifications Standard for the GS-0401 Fire Management Specialist. It is not required that this work be performed under the supervision of a professional employee, only that the work experience meets the definition required of this Standard.

If an employee or applicant has been performing the work described in the Supplemental Qualifications Standard, it is creditable even if that work was performed in a technical or administrative fire position.

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4 Generally, the course number includes the Department (discipline) for which the course was developed and whether the course is upper or lower division.
For additional information on crediting experience, refer to OPM General Schedule Qualification Policies, General Policies, Purpose and Scope. 3. Experience Requirements (d) - (p).

Application of Education and Specialized Experience

Creditable Education

Education, to be creditable toward the 24-semester hour requirement, must meet the requirements of the Qualification Standards for General Schedule Positions Operating Manual, published by the U. S. Office of Personnel Management. The nature and quality of the education must have been such that it would serve as a prerequisite for more advanced study (graduate level or professional education).

The education must meet one of the following:

1. **Conventional** - Obtained from a college or university, applicable school within the college or university, or applicable curriculum at the college or university that has been properly accredited.

2. **Agency courses which are creditable through a college or university** - These courses contain content developed or endorsed by an NWCG member agency. An agency or university provides instructors for these courses or may use contractors to teach them through agreements. Through an agreement with an accredited college or university, students can purchase credits. The acceptable format for validating the course completion is a college transcript or equivalent documentation showing completion of the course and the amount of credit awarded by the school. It should be noted that some courses are comprised of modules, for which each individual module can be awarded credits by the school as evidenced by the college transcript. It is up to the Human Capital Management staff to make the final determination as to whether a course constitutes creditable education from the standpoint of being equivalent to a “major field of study”.

Education Equivalent to a Major Field of Study (24 semester hours)

The **24 semester hours** must be obtained in biological sciences, natural resources, wildland fire management, forestry, or agriculture course work as noted above. You can refer to college course catalogs or consult with college advisors or officials to help you to determine the appropriate content of courses.

Additional Education

In addition to courses in the major and related fields, a typical college degree program would have included courses that involved analysis, written and verbal communication, critical thinking, planning research, etc. Therefore, creditable experience should have demonstrated similar skills and abilities.
The quality of the combination of education and experience, must be sufficient to demonstrate that the applicant possesses the knowledge, skills, and abilities 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 in the fields listed in section A. Degree, - OR - B. Combination of education and experience, of the Basic Qualification Requirements.

An example of appropriately creditable experience comparable to the required college coursework may be that of a technician, at the GS-7 grade level or above, who is working under the supervision of a professional employee and is performing duties equivalent to an entry-level professional employee, in the field of biological sciences, agriculture, chemistry, natural resources management, or fire management.

Specialized Experience: According to the Qualification Standards for General Schedule Positions Operating Manual, one-grade interval experience may be qualifying for two-grade interval positions, provided that the experience demonstrated the Knowledge, Skills, and Abilities required to perform the work successfully. This is true for either lateral or promotion actions. The basic requirements for the 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 occupational field. Since two-grade interval positions may differ significantly in the nature of the work, it is important that applicants be evaluated on the “knowledge required to perform the work.

Other education creditable towards 24 semester hours requirement: Prior to the OPM changes to the Operating Manual for Qualifications Standards for General Schedule Positions, Part E.4 – E.4(a) of the General Policies and Instructions Creditable education from other than an accredited institution of higher learning that meets the requirements of the qualifications standards. To meet the 24 semester hour or equivalent requirement, the other education must be equivalent to course work in a Bachelor’s of Arts or Bachelor’s of Science degree with a major course of study in biological sciences, natural resources, chemistry, wildland fire management, forestry, or agriculture. Most “technology” type coursework will not meet this requirement.

Technical Fire Management Courses: All TFM courses are creditable toward meeting the 24 semester hours required of the 0401 Qualification Standard if documented on either a transcript or a certificate with the name of the accredited college or university. The TFM certificate may note all 18 semester hours or the partial credit which the student may purchase for academic credit. These TFM credits are considered upper level creditable course work for the purposes of this supplemental standard.

A. TFM courses creditable toward meeting the required 24 semester hours under the 0401 Qualifications Standard (these meet the current documentation requirements noted in the OPM Operating Manual for Qualifications Standards for General Schedule Positions, Part E.4 – E.4(a) of the General Policies and Instructions, revised effective February 15, 2005):

<table>
<thead>
<tr>
<th>Module I/IA</th>
<th>Statistics/Computer and Math</th>
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</thead>
</table>
B. The NWCG Courses listed below were initially determined to be creditable toward meeting the required 24 semester hours under the 0401 Qualifications Standard. These met the documentation requirements prior to the revision of the OPM Operating Manual for Qualifications Standards for General Schedule Positions, Part E.4 – E.4(a) of the General Policies and Instructions, effective February 15, 2005. In order to be creditable after the February 15, 2005 revisions, these NWCG courses must be listed on an official transcript or equivalent documentation from an accredited college or university. The transcript or equivalent documentation must note the credited academic hours for each course. Other NWCG courses, not listed in the table below, may be used to meet the basic requirements of the 0401 Qualification Standard. However, they too must be listed on a transcript or equivalent documentation from an accredited college or university in order to be creditable:

<table>
<thead>
<tr>
<th>Module</th>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module II</td>
<td>Economics</td>
<td></td>
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<tr>
<td>Module III</td>
<td>Fuels Management</td>
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<tr>
<td>Module IV</td>
<td>Fire Ecology</td>
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<tr>
<td>Module V</td>
<td>Fire and Land Management</td>
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<tr>
<td>Module VI</td>
<td>Final Projects Reviews</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FIEM</td>
<td>Fire in Ecosystem Management</td>
<td>1</td>
</tr>
<tr>
<td>FML</td>
<td>Fire Management Leadership</td>
<td>1</td>
</tr>
<tr>
<td>FPM</td>
<td>Fire Program Management</td>
<td>1</td>
</tr>
<tr>
<td>LFML</td>
<td>Local Fire Management Leadership</td>
<td>1</td>
</tr>
<tr>
<td>NFMAS</td>
<td>National Fire Management Analysis System</td>
<td>1</td>
</tr>
<tr>
<td>RX-450</td>
<td>Smoke Management Techniques</td>
<td>1</td>
</tr>
<tr>
<td>RX-540</td>
<td>Applied Fire Effects</td>
<td>1</td>
</tr>
<tr>
<td>RX-590</td>
<td>Prescribed Fire Behavior Interpretation (to be combined with S-590)</td>
<td>2</td>
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<tr>
<td>S-490</td>
<td>Advanced Wildland Fire Behavior Calculations</td>
<td>1</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------</td>
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<tr>
<td>S-491</td>
<td>National Fire Danger Rating System</td>
<td>1 Semester Hour</td>
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<tr>
<td>S-492</td>
<td>Long Term Fire Risk Assessment</td>
<td>1 Semester Hour</td>
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<tr>
<td>S-493</td>
<td>Fire Area Growth Simulation</td>
<td>1 Semester Hour</td>
</tr>
<tr>
<td>S-520</td>
<td>Advanced Incident Management</td>
<td>2 Semester Hours</td>
</tr>
<tr>
<td>S-580</td>
<td>Advanced Fire Use Applications (National Parks &amp; Wilderness Fire Management)</td>
<td>1 Semester Hour</td>
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<tr>
<td>S-590</td>
<td>Fire Behavior Interpretation</td>
<td>2 Semester Hours</td>
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<td>S-620</td>
<td>Area Command</td>
<td>1 Semester Hour</td>
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<tr>
<td>P-151</td>
<td>Wildfire Origin and Cause Determination</td>
<td>1 Semester Hour</td>
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<tr>
<td>RX-300</td>
<td>Prescribed Fire for Burn Bosses</td>
<td>1 Semester Hour</td>
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<tr>
<td>RX-340</td>
<td>Introduction to Fire Effects</td>
<td>1 semester Hour</td>
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<tr>
<td>S-190/290</td>
<td>Introduction to fire Behavior combined with Intermediate Wildland Fire Behavior</td>
<td>1 Semester Hour</td>
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<tr>
<td>S-390</td>
<td>Introduction to Wildland Fire Behavior Calculations</td>
<td>1 Semester Hour</td>
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