

**SUPPLEMENTAL QUALIFICATION STANDARD FOR THE  
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE AND THE  
U.S. DEPARTMENT OF THE INTERIOR**

**GS-0401 FIRE MANAGEMENT SPECIALIST**

This document supplements the requirements outlined in the Qualification Standards for General Schedule Positions Operating Manual published by the U. S. Office of Personnel Management and must be used in conjunction with those requirements. Additional or clarifying information can be obtained from the Operating Manual.

**Basic Requirements:**

A. Degree: biological sciences, agriculture, natural resources management, or related discipline appropriate to the position being filled.

-OR-

B. Combination of education and experience: courses equivalent to a major in biological sciences, agriculture or natural resources management, or 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 the successful completion of a full 4-year course of study in the biological sciences, agriculture, or natural resources.

Applicants who meet the criteria for Superior Academic Achievement qualify for positions at the GS-7 level.

**Specialized Experience:**

For positions at GS-7 and above, one year of specialized experience at the next lower grade level is required in addition to meeting the basic requirements.

For GS-7: Experience that demonstrated an understanding of fire behavior relative to fuels, weather, and topography and how fire affects natural and cultural resources. Typical assignments include:

- Participating in implementing prescribed fire or fire use plans to ensure resource objectives can be met from a fire management standpoint.
- Developing initial attack incident management strategies and tactics to meet the stated resource objectives.

For GS-9: Experience in at least two of the following three categories:

1. Experience that demonstrated understanding of fire effects on cultural and natural resources. The assignments must have shown participation in activities such as:

- Developing fire management plans to ensure resource objectives can be met from a fire management standpoint; or
- Conducting field inspections before and/or after prescribed fires or wildland fires to determine if defined resource objectives have been met.

2. Prescribed fire/fuels management - experience in activities such as:

- Professional forest or range inventory methods and procedures (e.g., Brown's planar intercept for dead and down fuels; live fuel loading assessments), or
- Analysis of fuel loadings and determination of appropriate fuel treatment methods and programming, or
- Evaluating prescribed fire plans or fire management plans to ensure fire containment is possible and identify appropriate suppression contingencies if containment is not obtained.

3. Fire management operations - analyzing and applying fire management strategies, plus experience in at least four of the following activities:

- Mobilization and dispatch coordination
- Fire prevention
- Training
- Logistics
- Equipment development and deployment
- Fire communications systems
- Suppression and preparedness

For GS-11 and above: Experience must have included all of the fire program management elements as described below:

- Reviewing and evaluating fire management plans for ecological soundness and technical adequacy;
- Conducting field inspections before and after prescribed or wildland fires to determine if resource objectives were achieved and/or to evaluate the effectiveness of actions taken; and
- Developing analyses on the ecological role of fire and its use and/or exclusion, and smoke management.

In addition to fire program management, appropriate experience must have included either prescribed fire/fuels management - **OR** - fire management operations as described below:

Prescribed fire/fuels management - experience in a broad range of activities such as:

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

Fire management operations - analyzing and applying fire management strategies, plus experience in at least five of the following activities:

- Mobilization and dispatch coordination
- Fire prevention and education
- Training
- Logistics
- Equipment development and deployment
- Fire communication systems
- Suppression and preparedness
- Aviation

### **Medical and Physical Requirements**

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

## **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:

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

Chemistry	Earth Sciences
Environmental Sciences**	Geology
Hydrology	Meteorology
Outdoor Recreation***	Physical Geography*
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 (a bachelor's degree in English, for example).

\* GIS is creditable when identified as Biometrics/Applied Forestry/Natural Resources e.g. FOR xxx, Survey of GIS in Nat. Resources; GEOG xxx Hydrologic Appl. of GIS & Remote Sensing;

NR xxx Adv. GIS Appl. in Fire Ecology & Mgmt. 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).

**\*\*An Environmental Science degree does not equate to an environmental or natural resources policy degree.**

**\*\*\*Natural Resources emphasis**

Page 1 Notes for reference:

A.1. All disciplines in A.1 above were obtained from series listed in the Biological Sciences, GS-400 or within an individual occupational series. For example, natural resources management was taken from the GS-480, Fish and Wildlife Administration Series, and GS-454-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 400 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:

- 401 includes chemistry
- 470 includes physical and earth sciences
- 480 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-401 under paragraph B of the individual occupational requirements.

a. College/University: 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 [www.ope.ed.gov/accreditation](http://www.ope.ed.gov/accreditation)

**AND**

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:**

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

**Examples, not creditable:**

Course #	Course Title (Discipline)
▪ POS xxx	Environmental Policy (Political Science)
▪ SOC xxx	Environment & Society (Sociology)
▪ HIST xxx	American Env. History (History)
▪ STAT xxx	Data Analysis & Regression (Statistics)
▪ ECON xxx	Natural Resources Economics (Economics)
▪ ENG xxx	Professional Writing for Natural Resources Sciences (English emphasis)

NOTE: Generally, the course number includes the Department (discipline) for which the course was developed and whether the course is upper or lower division. A minimum of 18 semester hours must be in upper level course work. Upper level courses are normally numbered 300 or 400, or begin with a C or D.

**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.
- b. Other Education Creditable (Agency): Other Education creditable can be found in Attachment 3 of the Supplemental Qualification Standard for the GS-0401 Fire Management Specialist.

**NOTE: Agency “modules” listed in Attachment 3 of the Supplemental Qualification Standard for the GS-0401 Fire Management Specialist are creditable college courses. Employees are not required to pay for credits to be credited toward 401 qualifications. However, proper proof must be submitted.**

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.

For additional information on crediting experience, refer to OPM Qualifications Standards for General Schedule Positions, General Policies and Instructions, Part E.3(d) – (m).

## 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. Other education - Education obtained from other than an accredited institute of higher learning, such as National Wildfire Coordinating Group (NWGC) courses listed in Enclosure 3.
3. Credits from the USDA Graduate School, or equivalent. Only courses in biological sciences, natural resources, wildland fire management, forestry, or agricultural coursework are creditable towards the 24 semester hours 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. Educational course work must include at least **18 semester hours** of upper division (junior/senior) course work. Course titles and numbers may help determine whether a given course is upper or lower division. For example, courses numbered 100 or 200, beginning with A or B, or entitled "An Introduction To", are almost always lower division courses. Conversely, courses numbered 300 or 400, or beginning with C or D are usually upper division courses. You can also refer to college course catalogs or consult with college advisors or officials to help you to determine the appropriate level of courses.

Attachment 3 is a list wildland fire courses, which may also be applied to this requirement.

### Additional Education

In addition to courses in the major and related fields, a typical college degree 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 or B of the Basic Requirements.

### **Appropriate Experience to Meet Basic Requirements**

An example of appropriate experience which would be 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, natural resources management, or fire management.

### **Examples (Section “B” of Basic Requirements)**

In accordance with direction in the Qualification Standards for General Schedule Positions Operating Manual, 30 semester hours (or 45 quarter hours) is comparable to one year of college and can be substituted for one year of experience.

#### Example 1:

An applicant has 60 semester hours of creditable education, which includes the required 24 semester hours equivalent to a major field of study, (of which at least 18 are upper division). The applicant still must have 2 years of appropriate experience to meet the basic requirements. This combination equals 100%.

#### Example 2:

An applicant has only the 24 semester hours of creditable education, which includes the required 24 semester hours equivalent to a major field of study, (of which at least 18 are upper division). The applicant still must have 3 years, 2 1/2 months of appropriate experience to meet the basic requirements. This combination equals 100%.

#### Example 3:

An applicant has 24 semester hours of creditable general education from a local university and 24 semester hours of NWCG coursework, (of which at least 18 of are upper division). This applicant will be credited with a total of 48 semester hours of education. The applicant still must have 2 years, 5 months of appropriate experience to meet the basic requirements. This combination equals 100%.

#### Example 4:

An applicant has earned an Associate Degree in Fire Science Management, and has taken other coursework which together totals 75 semester hours of education. However, he/she has only earned 10 semesters hours of upper division credit. In addition, the applicant has 3 years of

appropriate experience. The applicant is still short 8 semester hours of upper level coursework; thus would not meet the basic requirements.

**Note:** In any case where NWCG coursework duplicates college or university coursework, duplicate credits cannot be granted.

### **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.”

## **GS-401 Fire Management Specialist**

### **Other Education Creditable Towards 24 Semester Hours Requirement**

The following list contains other education creditable towards the 24 semester hour requirement. This list contains two categories of coursework as defined below:

#### **A. Agency Courses:**

These courses contain content developed and controlled by an NWCG member agency. The agency provides instructors for these courses or may use contractors to teach them through agreements. They are sponsored and hosted by one of the member agencies. Attendance and successful completion of these courses will be validated by one of two acceptable documents; either an IQCS Employee Master Record report (Report Number C028) or, a Course Completion Certificate signed by the course lead instructor.

#### **B. Agency Courses That May Be 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. They are sponsored or hosted by one or more of the member agencies. College credit may be offered for these courses through a college or university but the course was developed with significant input by one or more federal agency. Through an agreement with the college or university, students may purchase credits. However, the purchase of college credit is not necessary if a certificate or other evidence of completion can be produced. Acceptable formats validating course completion are as follows:

1. College transcript 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;

OR,

2. A course certificate or letter of completion for the course from the hosting entity, be it a federal agency, contract training provider, or college.

**A. Agency Courses:**

Agency Course Code	Agency Course Title		Sponsoring Agency	Semester Hours	
				Upper Division	Lower Division
M-580	Fire in Ecosystem Management		NWCG	1	-
FML	Fire Management Leadership		NWCG	1	-
M-581	Fire Program Management		NWCG	1	-
LFML	Local Fire Management Leadership		NWCG	1	-
NFMAS	National Fire Management Analysis System		NWCG	1	-
RX-410	Smoke Management Techniques		NWCG	1	-
RX-510	Applied Fire Effects		NWCG	1	-
S-490	Advanced Wildland Fire Behavior Calculations		NWCG	1	-
S-491	Intermediate National Fire Danger Rating System		NWCG	1	-
S-492	Long Term Fire Risk Assessment		NWCG	1	-
S-493	FARSITE – Fire Area Simulator		NWCG	1	-
S-520	Advanced Incident Management		NWCG	2	-
S-580	Advanced Fire Use Applications		NWCG	1	-
S-590	Advanced Fire Behavior Interpretation	The learning objectives contained in the now obsolete RX-590 Prescribed Fire Behavior are included in S-590. Anyone who took RX-590 receives credit for S-590.	NWCG	2	-
S-620	Area Command		NWCG	1	-
FI-210	Wildland Fire Origin & Cause Determination		NWCG	-	1
RX-300	Prescribed Fire for Burn Bosses		NWCG	-	1
RX-310	Introduction to Fire Effects		NWCG	-	1
S-190/290	Introduction to Fire Behavior and Intermediate Wildland Fire Behavior (you must take both)	The obsolete course known as Intermediate Fire Behavior, identified in IQCS as XS-390, has components of both the current S-290 and S-390. XS-390 is worth 1 Semester Hour.	NWCG	-	1
S-390	Intro. to Wildland Fire Behavior Calculations		NWCG	-	1

**B. Agency Courses That May Be Creditable Through a College or University:**

Course Code	Course Title		Sponsoring Agency	Semester Hours	
				Upper Division	Lower Division
TFM	Module I – Math Fundamentals	No Numeric Designator	Federal Agencies	0	-
TFM	Module II – Statistics	F 489A - Numerical Analysis for Fire Managers		3	-
TFM	Module III – Economics	F 489B - Economics and Management for Fire Specialists		3	-
TFM	Module IV – Fuels	F 489C - Fuels and Fuel Management		3	-
TFM	Module V – Fire Ecology	F 489D - Fire Effects		3	-
TFM	Module VI - Management	F 489E - Fire and Land Management		3	-
TFM	Module VII – Final Project	F 489F - Technical Fire Management Project		3	-
CEEM	Continuing Education in Ecosystem Management	NR 6510 - Biophysical and Human Dimensions of Ecosystems		Federal Agencies	3
CEEM	Continuing Education in Ecosystem Management	NR 6520 - Structure and Function of Ecological and Social Systems	3		-
CEEM	Continuing Education in Ecosystem Management	NR-6530 - Integrated Inventory, Analysis and Assessment of Ecosystems	3		-
CEEM	Continuing Education in Ecosystem Management	NR 6540 - Ecosystem Management Implementation	3		-
CEFM	Continuing Education in Fuels Management (NR6560 – Fire and Fuels Management)		Federal Agencies	3	-
IS	Intensive Silviculture (NR6550 – Intensive Silviculture)		Federal Agencies	3	-