



AFE's Wildland Fire Professional Certification Guidebook

INTRODUCTION

The Association for Fire Ecology has developed the Wildland Fire Professional Certification program to further ecologically-based fire science and management. This guidebook describes the criteria which the Certification Committee uses to review and evaluate applicants for certification as a wildland fire professional. The overarching goal of this program is:

To formally identify fire careers as vital professions, to set standards for the preparation of future fire professionals, and to document the education, experience, and training qualifications of members of the fire ecology and management profession.

AFE offers two Initial Certifications for those starting out in their wildland fire careers, and two Certification Pathways, for Fire Managers and for Fire Ecologists & Scientists. Certification in that pathway are evaluated using two criteria: Coursework (completion of minimum requirements in 7 core areas OR graduation from an AFE certified academic program) and Experience.

APPLICATION PROCESS

Individuals applying for professional certification need to provide evidence and documentation in their application demonstrating that they have attained the minimum requirements for education and experience for the certification level they are applying for. Applications should be completed and submitted by September 1st using the [online submission form on AFE's website](#). Each application is evaluated by a panel of four reviewers, including representatives from the AFE Education Committee and the AFE board. The committee will evaluate all submitted material and generate a preliminary recommendation. Applications deemed to be incomplete by the Certification Committee will be returned to the applicant for revision and another chance for evaluation at no cost. Unfortunately, the evaluation results for returned applications may be delayed and it is possible the certification determination won't be announced with the results of other candidates of that year or by the Dec 1 deadline. A final recommendation for each applicant will then be submitted to the AFE Board of Directors for approval. Application fees are non-refundable and non-transferrable.

All applicants who meet the requirements outlined in this guidebook will receive full recognition as an AFE-Certified Wildland Fire Professional. Individuals who do not meet all review criteria will not receive certification. If the review panel or AFE board decide that there is not enough information provided in the application, they may ask the applicant for additional information during the review process. If an applicant is not granted certification, they have 90 days after the award letter is sent to respond in writing with any grievances about the decision. Grievances should provide additional information that addresses specific areas identified as unsatisfactory and clearly communicates why the evaluation of the program should be reconsidered. All grievances should be sent to [AFE's Co-](#)

[Director](#), who will work with the certification review committee, the AFE Education Committee, and the AFE Board to resolve the grievance in a timely manner.

Annual Timeline: Applications are due September 1; applicants will receive notification by December 1.

CERTIFICATION PATHWAYS

AFE offers six different professional certifications; two Initial Certifications for those starting out in their wildland fire careers, and two Certification Pathways, for (1) Fire Managers and (2) Fire Ecologists & Scientists. Individuals can be certified in either or both pathways, and the level need not be the same in the two pathways. You may apply for more than one certification at a time using the same form, as long as you meet the minimum qualifications for each level as summarized below. Detailed listing of each certification type can be found on our website.

Certification Types		Minimum education	Minimum related experience [years(degree)]*	Substantial Contribution (Yes/No)**
Initial Certifications:	AFE Wildland Fire Technician	2 or 4-year degree with a focus on Wildland Fire, such as Technical Fire Management 1	none	no
	AFE Wildland Fire Practitioner	BS ¹	2	no
Fire Management Pathway:	AFE Wildland Fire Manager	BS ¹ <i>or</i> MS in Fire Management or related field	8 (BS) 5 (MS)	no
	AFE Senior Wildland Fire Manager	BS ¹ <i>or</i> MS or PhD in Fire Management or related field	20 (BS) 10 (MS or PhD)	yes (see below)
Fire Ecology Pathway:	AFE Wildland Fire Ecologist	BS ¹ <i>or</i> MS in Fire Ecology/Fire Science or related field <i>or</i> PhD in Fire Ecology/Fire Science or related field	8 (BS) 5 (MS) 3 (PhD)	no
	AFE Senior Wildland Fire Ecologist	MS or PhD in Fire Ecology/Science or related field ²	10 (MS or PhD)	yes (see below)

¹BS with course work in the 7 Core Areas of Study *or* a Bachelor's (BS) from an AFE Certified Wildland Fire Academic Program (see [listing of Certified Programs on our website](#)).

² MS or PhD can be in a closely related field with a thesis or dissertation that immersed the candidate in Fire Ecology or Fire Science. The Certification Committee will determine whether years in graduate school reduce experience to the lower (5) minimum. Candidates are encouraged to provide enough supporting material to allow Certification Committee to assess this (e.g., Title, abstracts, citations of publications, recommendations from AFE Certified Fire Ecologists or Wildland Fire Managers).

Substantial and Lasting Contribution for **Senior Wildland Fire Manager: Applicants should demonstrate an exemplary record of achievement in ecologically-based fire management or fire policy. Senior Wildland Fire Managers are leaders in the wildland fire management profession who have made substantial and lasting contributions to the field, which could include holding a position of leadership in a national organization focused on fire ecology and management, or great influence in

incorporating fire ecology into fire management. This also could be demonstrated by a diversity of complex fire management responsibilities, especially if these are in multiple ecosystems; leading development and implementation of a fire management plan(s) based on ecological principles; modeling of fire behavior and effects based on ecological principles; breadth of experience and demonstrated influence on incorporating fire ecology into management practices, e.g. through publication and training; or equivalent demonstration of long-term commitment to integrating ecology into fire management.

*** Substantial and Lasting Contribution for **Senior Wildland Fire Ecologist**: Applicants are leaders in the fire science profession who have made substantial and lasting contributions to the field. Applicants should demonstrate an exemplary record of achievement in fire ecology or fire science research and education. Exemplary achievement for the Senior Wildland Fire Ecologist could include holding a position of leadership in a national organization where work is focused on fire ecology and fire management, or author or coauthor of publication(s) that are notable for their influence.

EVALUATION PROCEDURE

We will evaluate two background areas for certification (education, experience) independently, and for an applicant to qualify for certification, they **MUST** get a passing evaluation for both criteria.

All categories of evaluation for each area will be given an evaluation score. The score is based on a **four point ordinal scale** where **zero** indicates that the applicant has **NONE** of the criteria, **1** means that some of the criteria are met but not enough to be satisfactory, **2** indicates the applicant sufficiently meets the criteria but there is some question about whether all the criteria are actually met, and **the highest score of 3** indicates that the applicant fully meets all specified criteria.

A score is assigned to each category used in the two evaluation areas. The applicant **MUST** score an average of a score of 2 to receive a passing evaluation for a criterion. However, the applicant cannot have a zero in any one area. The following are the criteria for each of the evaluation categories.

Education

Fire Ecology, Fire Management and Fire Science are relatively new, developing academic areas and individuals working in these fields have degrees in a wide range of disciplines. It is also acknowledged that college degrees will differ in design and title between campuses. For this reason, degree requirements are listed with several options such as "B.S. with coursework in 7 core areas (see below) or graduation from an AFE Certified Academic Program, PLUS 8 years of related experience, OR a M.S. in Fire Ecology or Fire Science (or related field)". These differ by certificate, and meeting any of the options listed will satisfy the minimum degree requirement for that certificate. Completion of degree requirements must be supported by attached transcripts. The committee will also review other advanced quantitative courses (FARSITE, advanced statistics, monitoring/sampling, stand exam, forestry courses etc.), social science and PFTC, CEFM and other programs for equivalent credit.

If the applicant has received a Bachelor's degree from an AFE certified Academic Program, then they get a high score of 21 for this educational requirement and the evaluator can proceed to the experience category. However, if the applicant is **NOT** from a certified program, then they must receive an average of 2 for each of the next seven categories and they must have at least a score of one for any given category (they must have at least taken a course in that area).

The Seven Required Core Area of Study, each scored from 0-3

1. Fire Ecology - At least 3 credits required
2. Fire Science & Management - At least 3 credits required

3. General Ecology - At least 3 credits required
4. Statistics - At least 3 credits required
5. Advanced Ecology & Biology - At least 3 credits are required – upper division courses in: ecology, botany, entomology, forestry, pathology, zoology and related fields
6. Measurement & Analysis - At least 3 credits are required – remote sensing, GIS, modeling, sampling, monitoring, and related fields
7. Environmental Sciences - At least 3 credits are required – Meteorology, forestry, soils, geology, hydrology, physical geography, and related fields

All of the college credits listed above represent semester credits. For the purposes of this certification process, we will use the following: One semester credit = 1.5 quarter credit OR One quarter credit = 2/3 semester credit. The AFE Professional Certification Committee will review courses that are not categorized above, as needed, to assess equivalency to academic courses. Courses with a minimum of 3 hours per week for 14 weeks of fire ecology or science and management will meet that requirement even if there is not fire science or management in the title.

Where the applicant has served as an instructor for a course, they must submit a brief description of the course and this will meet the requirement for attending that course. Serving as a teaching assistant does not meet the requirement. Thesis and dissertation credits count toward fire ecology and fire management requirements if the thesis, or dissertation, include those topics. Please provide a brief description of how fire ecology and management are incorporated into the thesis/dissertation if it is not clear from the title. If applicants have more than 3 semester credits of advanced ecology but no general ecology, the extra advanced ecology credits can be used to partially or fully meet the general ecology requirement. Technical Fire Management (TFM) credits will be counted as academic credits if provided on an academic transcript. If transcripts are not provided, submit confirmation that the TFM courses were completed, and how many credits that they were given if university credits were purchased.

NWCG courses will be rated as follows:

- Fire Ecology: 1 credit each for RX 310, RX 410, and RX 510
- Fire Science and Management: 1 credit each for S 390, S 490 and S 590
- Most other fire suppression courses will not meet the certification requirements.

Experience

The applicant must meet the experience and education requirements in the following table. Please note that the MS and PhD experience MUST be in fire management, fire ecology, or a closely related field (Wildlife, Recreation, Economics are not closely related).

Certification	Minimum education	Minimum related experience [years(degree)]	Substantial and Lasting Contribution (Yes or No)
AFE Wildland Fire Technician	2-year or 4-year degree	none	no
AFE Wildland Fire Practitioner	BS	2	no
AFE Wildland Fire Manager	BS	3 (PhD) 5 (MS) 8 (BS)	no

AFE Senior Wildland Fire Manager	BS	20 (BS) 10 (MS or PhD)	yes
AFE Wildland Fire Ecologist	BS	3 (PhD) 5 (MS) 8 (BS)	no
AFE Senior Wildland Fire Ecologist	MS	10 (MS or PhD)	yes

Qualifying experience is the amount of time working within the fields of wildland fire or management. It is vital that the applicant document how much of each job was spent on fire ecology tasks and assignments. To prove experience qualification requirements, the applicant must attach the following:

- A curriculum vitae CV or short resume to document related qualifying experience.
- Documentation of "Related experience" that may consist of a combination of land stewardship, fire suppression, policy development, and/or research employment/volunteer and other work involving ecologically-based fire management.

If the applicant's duties were split between fire ecology and fire management, or only partially related to fire, then the applicant must estimate the percent of time that is spent working within the fields of wildland fire ecology and management. If more than 70 percent of your time was spent in fire ecology and management, you may count all of the time as qualifying experience. Assistantships (research, teaching, and graduate) do not count toward experiential time when they lead to a degree. Teaching college level courses can be used to meet experience requirements. A total of 18 semester credits are considered full time teaching. Teaching credit can be calculated as in the following example: two 3-credit classes each year for each of 8 years, $(6/18)*8=2.4$ years of experience.

Positions where firefighting or other fire suppression related work does not directly qualify as fire ecology or fire management, however, these suppression jobs are considered equivalent to 1/3 of actual time spent in the job, and the applicant must provide specific detail justifying inclusion as fire ecology or fire management.

Each position listed by the applicant is rated by two attributes. First, the proportion of time spent in the job doing fire ecology or fire management work is estimated as a percent for each of the two areas (ecology and management), and those percents are multiplied by the length of the job in years to compute the actual time served as a fire ecologist/manager. Next, the job is scored (0-3) as to its fit to fire ecology and management. The applicant MUST meet both the time requirement for work experience AND they must average a score of 2 for each position. Therefore, it is critical that the applicant include an estimate of the percent of time in each job that was spent performing fire ecology tasks.