

California Cadastral Mapping Association

Requirements and Guidelines



CADASTRAL MAPPING Professional Certification



CADASTRAL MAPPING

Professional Certification Program

Minimum Required Points for Initial Certification

Experience is the most important factor in applying skills to real world problems, and education plays a very important role in providing the knowledge and intellectual maturity required to approach problems and communicate solutions effectively. In addition, professionals must contribute to the advancement of the profession by donating their skills in professional efforts not designed for individual compensation, but rather to maintain the fundamental health of the Profession.

This forms the basis for the minimum number of points required in each category. The following is a minimum point schedule for each type of certification.

Category	Cadastral Analyst	Cadastral/GIS Analyst	Master Cadastral Analyst
Experience	60	60	75
Education	25	25	30
Contribution	6	6	8
Any Category	59	59	87
Total:	150	150*	200
		* 50 points must be GIS related, can be any category.	
Professional Experience (Minimum)	4 Years	4 Years	6 Years (2 years of decision making or supervisory level)

Table MP-1

Cadastral Analyst or Cadastral/GIS Analyst

If you have less 4 years (48 months) of professional experience you are not qualified to apply for Cadastral Analyst or Cadastral/GIS Analyst Certification regardless of your point total.

The minimum qualification for initial certification is four (4) years of professional experience in the area of cadastral mapping and/or cadastral GIS. An individual will need to accrue a minimum of 150 points, total, to meet minimum requirement. Therefore, if the applicant has less than four years of professional experience but meets the 150-point minimum the applicant must wait until the 4-year (48 month) requirement is met.

Master Cadastral Analyst

If you have less 6 years (72 months) of professional experience you are not qualified to apply for Master Cadastral Analyst Certification regardless of your point total. Also, if you do not have a minimum of two (2) years of decision making/supervisory experience you are not qualified to apply for Master Cadastral Analyst.

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The minimum qualification for initial certification is six (6) years of professional experience, of which two (2) must be in a decision making/supervisory capacity. All points must in be in the area of cadastral mapping and/or cadastral GIS. An individual will need to accrue a minimum of 200 points to meet minimum requirement. Therefore, if the applicant has less than six years of professional experience and/or less than two years of decision making/supervisory experience, but meets the 200-point minimum, the applicant must wait until the 6-year (72 month) experience and 2-year decision making/supervisory requirements are met.



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Experience Points

Experience Achievement Point Schedule – Cadastral Analyst or Cadastral/GIS Analyst

NOTE: If you have less 4 years (48 months) of professional experience you are not qualified to apply for Cadastral Analyst or Cadastral/GIS Analyst Certification regardless of your point totals in this or any category.

Minimum Professional Experience Requirement

The minimum qualification for initial certification is four (4) years of professional experience in the area of cadastral mapping and/or cadastral GIS. An individual will need to accrue a minimum of 60 points in this area to meet minimum requirement. Therefore, if the applicant has less than four years of professional experience but meets the 60-point minimum the applicant must wait until the 4-year (48 month) requirement is met.

See Table XP-1 for Base Experience Levels and point allocations.

Experience Achievement Point Schedule – Master Cadastral Analyst

NOTE: If you have less 6 years (72 months) of professional experience you are not qualified to apply for Master Cadastral Analyst Certification regardless of your point totals in this or any category. Also, if you do not have a minimum of two (2) years of decision making/supervisory experience you are not qualified to apply for Master Cadastral Analyst.

Minimum Professional Experience Requirement

The minimum qualification for initial certification is six (6) years of professional experience, of which two (2) must be in a decision making/supervisory capacity. All experience must in be in the area of cadastral mapping and/or cadastral GIS. An individual will need to accrue a minimum of 75 points in this area to meet minimum requirement. Therefore, if the applicant has less than six years of professional experience and/or less than two years of decision making/supervisory experience, but meets the 75-point minimum, the applicant must wait until the 6-year (72 month) experience and 2-year decision making/supervisory requirements are met.

Professional experience points are given for what is known as the senior or supervisory level

Experience Achievement Point Schedule – Upgrading from Cadastral Analyst or Cadastral/GIS Analyst to Master Cadastral Analyst

Minimum Professional Experience Requirement

The minimum qualification for upgrading to Master Cadastral Analyst certification is an additional two (2) years of professional experience, of which must be in a decision making/supervisory capacity. Total experience points must meet the 75-point minimum.

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Base Experience Levels	Points per FTE year
Decision making or Supervisory capacity:	35 pts
Journeyman Level – Cadastral Mapping	25 pts
Journeyman Level – Cadastral Mapping with GIS experience	25 pts
Below Journeyman Level – Cadastral Mapping	15 pts
Below Journeyman Level – Cadastral Mapping with GIS experience	15 pts
Trainee – Cadastral Mapping	10 pts
Trainee – Cadastral Mapping with GIS experience	10 pts
Instructor / Teacher – Cadastral Mapping or GIS	15 pts

Table XP-1

Other professional fields may also earn experience points for Cadastral Analyst, Cadastral/GIS Analyst or Master Cadastral Analyst. The following are a few examples of related employment areas: surveying, civil engineering, real estate, and appraisal. The points given would be based on the actual functions performed using the point criteria from Table XP-1.

Full Time Equivalent Percentages (FTE %)

FTE % is the decimal portion of time credited towards a particular experience level. This would occur if not all your time at a given experience level was not devoted to cadastral or cadastral/GIS functions. The best example is a part time employee. Say they only worked 20 hours a week in the profession. This would have an FTE% of .5 or 50%.

Example of Experience:

Exp. Level	FTE %		Years		Pts/Yr	Subtotal
Below Journeyman	0.8	x	2.3	x	15	27.60
Journeyman level	1.0	x	4.5	x	25	112.50
Supervisory Capacity	1.0	x	3.25	x	35	113.75
GIS Instructor (local JC)	0.2	x	2.5	x	15	7.50
Engineering Office (Below Journeyman)	0.5	x	5.5	x	15	41.25
TOTAL Experience Points:						302.60

In the above example, the individual has more than 6 years experience of which more 2 years is at the decision making/supervisory level. Also his point total exceeds 75 points. The candidate has met the experience requirements for Master Cadastral Analyst.



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Educational Achievement Points

While formal education experiences may not contribute as much as experience to a cadastral mapping professional's qualifications, they certainly do have the potential to be valuable means of acquiring the knowledge, skills, and dispositions that individuals need to be successful in any profession. The guidelines are meant to encourage practitioners to seek out continuing opportunities while providing incentives to education providers to build substantive cadastral mapping programs with quality courses. CCMA is not an accrediting body, and therefore will not attempt to evaluate the quality of educational institutions or programs. Instead, it will ensure that individuals who seek certification have successfully participated in a minimum of relevant, formal educational experiences.

Education Point Schedule

The Education Point Schedule consists of three (3) parts or types of educational points.

Credential Points: points earned through successful completion of a formal degree or certificate program offered by accredited educational institutions. Credential points are also given for professional registration, license, or certification in related professional fields.

Credentials	Points
Master's Degree or Higher	25 Points
Bachelor's Degree	20 Points
Associate's Degree	10 Points
Certificate Program	5 points
Civil Engineer Registration	15 Points
License Land Surveyor	15 Points
Engineer In Training (EIT)	5 Points
Land Surveyor In Training (LSIT)	5 Points
Real Estate Broker's License	10 Points
Real Estate Salesman's License	5 Points
Appraiser Trainee	5
Residential Appraiser	8
Certified Residential	10
Certified General	15

Table EP-1

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Course Points: points earned through successful completion of individual courses, workshops, seminars, or other formal, documented educational activities whose subject matter relates directly to cadastral mapping or geographic information technologies.

Calculating Student Activity Hours (SAH) for types of courses or workshops.

- For a college or university course with set credits (i.e., 3 credits):
$$SAH = C \times 3 \times W$$

C = Credits
3 = Fixed (Activity hours per credit)
W = Length of course in weeks

Example: 3 Credit course, 15 week semester $SAH = 3 \times 3 \times 15$
SAH = 135 Hrs
- For non-credit college or university course, or workshop for which you earn CEUs (Continuing Education Units).
$$SAH = CEUs \times 10$$

10 is the number of SAH per CEU

Example: 2 CEUs $SAH = 2 \times 10$
SAH = 20 Hrs
- For non-credit, non-CEUs, or workshops, SAH equals the actual classroom hours.
Example: 2 Day Workshop / 8 per day = 16 SAH

For Educational Points divide total SAH by 40 (activity hours per point).

Example: 135 SAH from Credit Course
 20 SAH from CEU Course
 16 SAH from Workshop
Total SAH = 171 / 40 → **4.3 (rounded) Educational Points**

Conference Attendance Points: Conference attendance points are awarded in recognition of the valuable informal learning afforded by participation in meetings and conference sponsored by professional societies and regional and local user groups.

Conference Attendance Points are determined by the number of days and not hours spent at each event. Therefore, the number of days attended should always result in a whole number. You multiply 0.2 by the number of attendance days to obtain Educational Points earned.

Example: CCMA Conference – 2 days → $2 \times 0.2 = 0.4$ **Educational Points**

NOTE: All Educational Points need to be documented in some manner. (i.e.; degrees, diplomas, certificates, proof of attendance)



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Contributions to the Profession Points

The minimum qualification for initial certification is to accrue points in areas that not only benefit the applicant but also benefit the profession as a whole. There are several major areas of involvement with points being awarded for a multitude of activities within them. Contribution points may fall into any of the categories or be distributed among them all.

Contributions are intended to recognize documents and activities that relay lessons learned and techniques developed at work beyond the office. They should benefit the profession as a whole.

Rationale

The ability to contribute can be limited by lack of administrative support and resources; however, the program and the cadastral mapping community must not lower expectations to the lowest common denominator. Instead, a case should be made for the value of participation. In this way, cadastral staff members can use Certification to convince their management that participation contributes to the education and professional development of their staff.

Contribution Point Schedule

The Contribution Point Schedule consists of several parts or types of contribution points.

Cadastral/GIS Publications: Writing or reviewing certain Cadastral/GIS related materials. For any work to be considered published, for the purposes of earning contribution points, it must be or have been publicly available in electronic or print form from an independent third party.

Contribution	Points per Publication
Book – Author/Editor	15 Points
Book Chapter - Author	5 Points
Published Paper	5 Points
Magazine / Journal Article	3 points
Paper in Conference Proceedings	2 Points
Newsletter Article	1 Points
Web site Article	1 Point

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Cadastral/GIS Professional Involvement: Being an active member of an organization with focus on Cadastral/GIS activities or education.

Contribution	Points per Year of Office or Affiliation
President or Board Chair	5 Points
Officer or Board Member	4 Points
Appointed Position	4 Points
Committee Chairperson	3 Points
Committee Member	2 Points
Association/Organization Membership	1 Point

Table CP-2

Cadastral/GIS Conference Participation or Presentation: Organizing a conference, giving a presentation, or being part of organizing or presenting.

Conference Participation or Presentation	Points per Event
Conference Chairperson	4 Points
Conference Committee Member	2 Points
Conference Presentation	2 Points
Assist with Conference Presentation	1 Point

Table CP-3

Cadastral/GIS Awards Received: Awards for excellence in Cadastral/GIS proficiency that way be bestowed by a variety of sources.

Conference Participation or Presentation	Points per Award
National or State Award	3 Points
Local or Regional Award	2 Points

Table CP-4

Note: Award's issued by the applicant's employer do not count as a contribution to the profession.

Cadastral/GIS Other Contributions: Includes other activities or events that may not qualify under previous listed categories.

Other Contribution	Points per Activity
Initiating a mass email inquiry	1 Point
Responding to a mass email inquiry	1 Point

Table CP-5



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Grandfathering Provision

Before completing the regular application for Cadastral Certification you may want to consider applying under the Grandfathering Provision. The Grandfathering Provision is for experienced cadastral analyst. The current cadastral experience is allowed to compensate for deficiencies in the other two Achievement Categories. Therefore, Grandfathering Provision is based solely on experience. If a minimum number of years, or points, of experience is met, then the individual obtains their certification. After that, they must attain the required points in each category for recertification.

The following is a minimum years/points schedule for Grandfathering each type of certification.

Certification Type	Years of Experience	Total Points
Cadastral Analyst	5 or more	200 Any Category
Cadastral/GIS Analyst	5 or more	*200 Any Category
Master Cadastral Analyst	*8 or more	300 Any Category
	* Min. 3 years must be decision making / supervisory experience.	* 85 points must be GIS related.

Table GP-1

Cadastral Analyst or Cadastral/GIS Analyst

If you have less than 5 years (60 months) of professional experience you are not qualified to apply for Cadastral Analyst or Cadastral/GIS Analyst Certification under the Grandfathering Provision regardless of your point total.

The minimum qualification for Grandfathering Provision certification is five (5) years of professional experience in the area of cadastral mapping and/or cadastral GIS. An individual will need to accrue a minimum of 200 points, total, to meet minimum requirement. Therefore, if the applicant has less than five years of professional experience but meets the 200-point minimum the applicant may not apply under the Grandfathering Provision

Applicants are eligible for the Grandfathering Provision if they have earned a minimum of 200 professional experience points (see Table EP-1).

The following are few examples of candidates who qualify for the Grandfathering Provision.

- 8 years of cadastral experience at the journeymen level, nothing from education or contributions (total 200 points).
- 5 years of cadastral experience at the journeymen level and 75 points from either education and/or contributions (total 200 points).
- 6 years of cadastral experience at the journeymen level and 50 points from education, nothing from contributions (200 points).

If an applicant is applying for Cadastral/GIS Analyst, a minimum of 85 of the 200 points must come from experience, education, and/or contributions related to GIS.

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Master Cadastral Analyst

If you have less 8 years (96 months) of professional experience you are not qualified to apply for Master Cadastral Analyst Certification under the Grandfathering Provision regardless of your point total. Also, if you do not have a minimum of three (3) years of decision making/supervisory experience you are not qualified to apply for Master Cadastral Analyst this provision.

The minimum qualification for Grandfathering Provision certification is eight (8) years of professional experience, of which three (3) must be in a decision making/supervisory capacity. All points must in be in the area of cadastral mapping and/or cadastral GIS. An individual will need to accrue a minimum of 300 points to meet minimum requirement. Therefore, if the applicant has less than eight years of professional experience and/or less than three years of decision making/supervisory experience, but meets the 300-point minimum, the applicant may not apply under the Grandfathering Peovision.

The following are few examples of candidates who qualify for the Grandfathering Provision.

- 8 years and 7 months of cadastral experience in decision making/supervisory level, nothing from education or contributions (total 300 points).
- 11 years total - 8 years of cadastral experience at the journeymen level and 3 years in decision making/supervisory level. Nothing from either education and/or contributions (total 305 points).
- 8 years total - 5 years of cadastral experience at the journeymen level, 3 years in decision making/supervisory level and 70 points from education, nothing from contributions (300 points).