

Engineering Manager Professional Certification (EMPC) Handbook

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# Program Scope

This document covers the examinations required to attain engineering manager professional certification at the Certified Associate in Engineering Management (CAEM) level and at the Certified Professional in Engineering Management (CPEM) level.

An EXAM Application is available in the Appendix.

# Background

ASEM recognizes the need of engineers and other technical professionals to develop and validate their skills in technical management as they progress through their careers. To that end, ASEM has created two levels of professional certification: Certified Associate in Engineering Management (CAEM) and Certified Professional in Engineering Management (CPEM). ASEM has established requirements to become certified at the ASEM certification levels of CAEM or CPEM. Conditions for recertification have also been established.

# Certified Associate in Engineering Management

The professional certification at this level is designed for young technical professionals seeking to establish credentials in preparation for early technical management or supervisory assignments. Certification is valid for three years. The criteria for certification at this level are as follows:

|  |  |  |
| --- | --- | --- |
| **Required Academic Training** | **ASEM Exam Fee****Non Member/Member** | **Recertification Fee****Non Member/Member** |
| BSEM from ABET Accredited Program or BS/BA in related EMBOK Technology or Engineering Field | **$250/$1505** | **$100** |
| MSEM From ASEM Certified Program ***(no exam required)*** | **$150/$100** | **$100** |
| MSEM from Non ASEM Certified Program or MS in related EMBOK Technology or Engineering Field | **$250/$150** | **$100** |

*Notes for CAEM:*

1. *Copy of degree transcripts (digital copy of official preferred; unofficial accepted with a copy of diploma) must accompany application. Transcripts will be reviewed by a PDCE panel of 3 CPEMs and voted on to ensure appropriate rigor was attained in the course of the curriculum.*
2. *EMBOK Technology and Engineering Fields must display technical subject matter from a minimum 5 of 11 Domains of Engineering Management.*
3. *ASEM Membership is required to receive the discounted rate.*
4. *No work experience required to pursue the CAEM.*
5. *Undergraduates in programs in academic partnership receive a $25 discount in addition to the member discount ($125)*

# Certified Professional in Engineering Management

The professional certification at this level is designed for experienced technical managers seeking to validate their skills and experience with a professional certification. Certification is valid for three years. The criteria for certification at this level are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Required Academic Training**  | **Minimum Professional Experience** | **PEM** **Exam Fee****Non Member/Member** | **Recertification Fee****Non Member/Member** |
| BSEM from ABET Accredited Program or BS/BA in related EMBOK Technology or Engineering Field |  **4 yrs.** | **$300/$250** | **$150/$100** |
| MSEM From ASEM Certified Program | **3 yrs.** | **$250/$150** | **$150/$100** |
| MSEM from Non ASEM Certified Program or MS in related EMBOK Technology or Engineering Field | **4 yrs.** | **$300/$250** | **$150/$100** |
| PhD in Technology, Industrial and Systems, or Engineering Management ***(no exam required)*** | **3 yrs.** | **$300/$250** | **$150/$100** |

*Notes for CPEM:*

*(1) Copy of degree transcripts* (digital copy of official preferred; unofficial accepted with a copy of diploma) *must accompany application. College Transcripts will be reviewed by a PDCE panel of 3 CPEMs and voted on to ensure appropriate rigor was attained in the course of the curriculum.*

*(2) Guidance on related EMBOK Technology or Engineering Fields are found in the EM Handbook for Certification. EMBOK Technology and Engineering Fields must display technical subject matter from a minimum 5 of 11 Domains of Engineering Management.*

*(3) CV or resume documenting work experience with supervisor contact information must be provided to validate professional experience.*

*(4) ASEM Membership is required to receive the discounted rate.*

*(5) Graduate students in academic partnership receive a $25 discount in addition to the member discount.*

*(6)* *Proctor discount: If an ASEM Certified Program is conducting a bulk CPEM certification (over 5 students in one sitting), and all are members, cost per exam will drop $25 per student. This option would still require the 3- year Minimum Professional Experience.*

# Examinations

The CAEM level of professional certification requires successfully passing the CAEM exam for all except those individuals who hold an MS degree from an ASEM certified graduate program. All individuals wishing to attain the CPEM level of certification must successfully complete the CPEM exam.

## Certification Exam Format and Requirements

The format and requirements associated with the CAEM and CPEM exam are shown in the table below.

**Type of**

**Exam**

**Number**

**of Questions**

**Percent**

**Correct to Pass**

**Time**

**Allowed**

**CAEM Exam**

Multiple Choice

100

70

2 Hours

**CPEM Exam**

Multiple Choice

200

70

4 Hours

## Examination Process

1. Individuals desiring to take the exam must:
2. Apply to take the exam (Electronic Application Form)
3. Pay the required examination fee
4. Identify a third-­‐party proctor\* for the exam
5. Once an individual is authorized to take one of the exams, the examination will be provider in one of two ways both utilizing a proctor\*:
6. **Web-­‐based**
7. Identify a proctor
8. A username and password for the exam will be given to the identified proctor to allow access to the exam on the ASEM website.
9. The proctor will arrange a suitable computer terminal for the applicant to take the exam and ensure the exam is completed according to the instructions provided.
10. **Paper-­‐based**
11. Identify a proctor
12. The exam and an answer sheet with instructions will be sent to the proctor. The applicant and proctor will arrange for the exam to be completed according to the instructions provided.
13. The proctor will return the exam and answer sheet to ASEM
14. Individuals passing one of the exams will receive the appropriate certification by ASEM.
15. Individuals failing an exam may retake it once within 90 days. After 90 days, an individual must submit a new application and pay the required fee. A second failure will result in the individual having to wait six months to take the exam again with a new application and fee.

\*Proctors are third-­‐party individuals who agree to serve in this capacity. They can be an individual’s supervisor, someone from the HR department, or an education officer. A librarian at a public or university library or an authorized agent of a university or private testing center may also serve in the event someone within the applicant’s company cannot be found. ASEM Certified Knowledge providers (CKPs) may also be authorized to give the exams.

An EXAM Application is available in the Appendix.

# Recertification

## CAEM level

Individuals certified at the CAEM level may be recertified one time at the CAEM level. This option ensures that all CAEMs would be able to generate sufficient experience to qualify for the CPEM level. CPEM certification requirements are described in the ASEM document: Engineering Manager Certification Requirements. Recertification at the CAEM level can be achieved by accumulating 45 PDUs over the preceding three years and by paying a recertification fee of $100 member to ASEM. PDUs are self-­‐reported to ASEM with the application for recertification.

## CPEM level

Individuals certified at the CPEM level may be recertified by accumulating 45 PDUs over the preceding three years and by paying a recertification fee of $150 non-member/$100 member to ASEM. PDUs are self-­‐ reported to ASEM with the application for recertification.

## Professional Development Units

Every year, there are many opportunities to earn professional development units (PDUs) towards ASEM recertification. For recertification, individuals are required to self-­‐report PDUs obtained during the preceding three years. It is the responsibility of the individual to maintain records supporting the PDUs reported, and these may be subject to audit by ASEM. PDUs quantify approved learning and professional service activities. While courses and seminars are ideal ways to stay up-­‐to-­‐date with engineering management best practices, many other activities occurring in daily professional life may count toward PDUs. The following is a list of opportunities to earn PDUs that are recognized by ASEM. Other activities not listed here may qualify. Individuals may contact the ASEM Director for Professional Development and Continuing Education concerning the validity of other activities not listed here.

1. Certified Education Provider (CKP) Courses: There are Certified Knowledge Providers offering training courses based on the current edition of the Guide to the Engineering Management Body of Knowledge. Individuals earn one PDU for each hour of formal training.
2. ASEM Annual Conference: The annual ASEM conference offers opportunities to network with colleagues and attend presentations that go toward receiving PDUs. Individuals earn one PDU for each hour of presentation attendance.
3. ASEM Student and Community Offerings: ASEM Student Chapters hold events, meeting and educational sessions that are approved for PDUs. Individuals earn one PDU for each hour of chapter or community attendance.
4. Professional Activities: Authoring an article about engineering management or speaking at an engineering management event can quickly earn you PDUs. ASEM offers 10 PDU’s for an applicable conference paper or presentation and 20 PDU’s for published journal article.
5. Self-­‐Directed Learning: Individuals obtain PDUs by sharing engineering management knowledge with colleagues. ASEM will recognize activities that involve personally conducted research or study. This includes discussions or coaching sessions with colleagues or clients that put to use informational materials such as CD-­‐ROMs, articles, books, videos or instructional manuals. Individuals earn one PDU for each hour of self-­‐directed learning.
6. Educational Programs by Outside Providers: ASEM recognizes relevant educational activities or programs offered by organizations not associated directly with ASEM. One hour of learning relevant to engineering management within a structured activity or course equals one PDU.
7. Volunteer Professional Service: Individuals earn PDUs for providing services to a professional organization or society related to the field of engineering management. Opportunities exist to serve as an elected officer, conference official, or committee member. Volunteer engineering management related service can also be provided to a community or charitable group. Individuals earn up to 5 PDU’s per year for charitable work.

A PDU Tracking Form is available in the Appendix.

**APPENDIX**