



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 Associate Engineering Manager (AEM) level and at the Professional Engineering Manager (PEM) 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: Associate Engineering Manager (AEM) and Professional Engineering Manager (PEM). ASEM has established requirements to become certified at the ASEM certification levels of AEM or PEM. Conditions for recertification have also been established.



Associate Engineering Manager (AEM)

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:

	B.S. or B.A. (Other than Engineering Mgmt.)	BSEM from ABET Accredited Program	MSEM from Non-ASEM Certified Program	MSEM from ASEM Certified Program
Required Training or Work Experience	Yes*	Yes*	Yes*	None
AEM Exam Fee	\$250	\$250	\$250	Not Required
Certification Fee	N/A	N/A	N/A	\$100

*Any combination of 40 hours of documented training related to three or more domains of the EMBOK and/or any combination of two years of a) professional experience or b) managing knowledge workers in a technology-based enterprise.



Professional Engineering Manager (PEM)

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:

	B.S. or B.A. (Other than Engineering Mgmt.)	BSEM from ABET Accredited Program	MSEM from Non-ASEM Certified Program	MSEM from ASEM Certified Program	Ph.D. in Engineering Management
Professional Experience*	5 years**	4 Years**	4 Years	2 Years	3 Years
PEM Exam Fee	\$250	\$250	\$250	\$250	\$250 No Exam Required

*Managing projects or programs related to three or more of the domains of the EMBOK and/or managing knowledge workers in a technology-based enterprise

**Completion of an ASEM sponsored “Managing Knowledge Workers Training Program” or “PEM Test Preparation class” of at least 24 hours reduces the experience requirement by one year.



Examinations

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

Certification Exam Format and Requirements

The format and requirements associated with the AEM and PEM exam are shown in the table below.

	Type of Exam	Number of Questions	Percent Correct to Pass	Time Allowed
AEM Exam	Multiple Choice	100	70	2 Hours
PEM Exam	Multiple Choice	200	70	4 Hours



Examination Process

1. Individuals desiring to take the exam must: a. Apply to take the exam (Electronic Application Form) b. Pay the required examination fee c. Identify a third-party proctor* for the exam
2. Once an individual is authorized to take one of the exams, the examination will be provided in one of two ways both utilizing a proctor*: a. Web-based i. Identify a proctor ii. A username and password for the exam will be given to the identified proctor to allow access to the exam on the ASEM website. iii. 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. b. Paper-based i. Identify a proctor ii. 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. iii. The proctor will return the exam and answer sheet to ASEM
3. Individuals passing one of the exams will receive the appropriate certification by ASEM.
4. 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

AEM level

Individuals certified at the AEM level may be recertified one time at the AEM level. This option ensures that all AEMs would be able to generate sufficient experience to qualify for the PEM level. PEM certification requirements are described in the ASEM document: Engineering Manager Certification Requirements. Recertification at the AEM level can be achieved by accumulating 45 PDUs over the preceding three years and by paying a recertification fee of \$50 to ASEM. PDUs are self-reported to ASEM with the application for recertification.

PEM level

Individuals certified at the PEM level may be recertified by accumulating 45 PDUs over the preceding three years and by paying a recertification fee of \$50 to ASEM. PDUs are self-reported to ASEM with the application for recertification.

Sources of PDUs

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