



# American Society for Engineering Management

## Self Study Guide

Please provide a written statement to ASEM world headquarters (ASEM-hq@asem.org) indicating how the following standards are being met.

### A. Faculty

1. **There will be at least one full time EM faculty member who is responsible for the program and spends all of his or her time with the program.** Identify the EM faculty and state his/her credentials. Vita of all faculty involved in the EM program should also be provided.
2. **Full time faculty members will teach one-third or more of the courses.** State how many of these faculty members are designated Engineering Management. Discuss the evidence that indicates that qualified full time faculty members teach one-third or more of the courses in the program. Discuss the credentials of part-time and adjunct faculty members teaching in the program.
3. **The faculty workload must be reasonable and appropriate for the stated mission of the program.** Typical faculty workloads should be identified along with a mission statement for the program.

### B. Curriculum Requirements

1. **A balance between qualitative and quantitative courses. Curriculum should reflect the domains of the EMBOK.** Determine the approximate balance between quantitative and qualitative courses. Does one type dominate or is there an appropriate balance? Which domain topics are covered in which courses?
2. **At least one third of the curriculum will be management related including management of people, projects, and strategy courses.** Identify the management and management related courses EM students are required to take. Identify other electives that most EM students take. Is the standard met?
3. **Courses designated "Engineering Management" are in the academic catalog.** Are there "EM" courses in the catalog? Are they appropriate "EM" courses?
4. **Course material must be directly related to technology driven organizations.** Are the courses up to date and useful in today's economy? Are global concepts effectively taught?
5. **The curriculum must require each student to demonstrate a command of written and oral communication skills in English or in the language of instruction in countries where English is not the language of instruction.** Written project reports and video recordings of project presentations will be examined for quality of concepts, analysis and recommendations. Language grammar proficiency, logical flow of writing and quality of expression will be assessed during the visit.
6. **Courses must relate to knowledge workers in a global environment.** There must be evidence to show that the program is current and related to the current economy and global competition. Course syllabi and course and project reports will be examined for this evidence.
7. **Each student is required to perform a capstone project or thesis using analysis and integration of Engineering Management concepts. For programs that do not have a capstone project or a thesis option, project work from individual courses in the program**

**should demonstrate application of theory in real world settings.** Do most students do a capstone project that integrates program concepts? Is the quality of analysis and quality of presentation of master's level work? Are project topics practical or theoretical? If projects are contained within various courses, copies of such project reports should be made available for viewing by the certification evaluation visit team.

8. **A minimum of one course in statistics or Quality Engineering or a related area.** Identify the statistics or Quality Engineering course. What statistics topics are covered in one or more of these courses?
9. **A minimum of one course in engineering economy or Financial Management or a related area.** Identify the engineering economy and/or Financial Management or related courses and determine if they contain content beyond the normal undergraduate courses.
10. **Two courses in quantitative analysis are required.** Identify quantitative analysis courses. They may include design of experiments, simulation, quantitative and qualitative decision analysis, capstone courses and other options. Comment on the appropriateness of content and standards applied.

### C. Students - Admission Requirements

1. **A grade point average of at least 3.00 on a 4.00 scale from an ABET accredited undergraduate Engineering or Engineering Technology program or equivalent accreditation in the country from where the student received the bachelor's degree or where there EM program is offered.** Is there adequate evidence that admission standards ensure that the EM program is a high quality program? Discuss reasons and evidence.
2. **Other students may be admitted provisionally with an appropriate mathematical background equivalent to at least one semester of calculus.** Is there a mechanism to monitor and mentor students who are admitted on a provisional basis?

### D. Administrative Support

1. **Students must have access to an academic advisor for the purpose of planning a program of study that meets both degree and the student's professional requirements.** Cite evidence that students have adequate access to advisors to plan programs of study appropriate to their needs and program mission. Show how course scheduling advice is made available. If the program serves Distance Learning or otherwise atypical students, what provisions are made to provide administrative services to them?
2. **The program must have access to sufficient resources and facilities to meet the needs of the targeted student population. Resources generated by the program are sufficiently reinvested in the program.** Provide evidence that the program is adequately funded for the near term student population.
3. **The student must have access to appropriate literature. This usually means access to a library with a collection of books and periodicals appropriate to engineering management theory and practice.** Cite evidence that the library adequately serves the range of students in the EM program. This includes Distance Learning, evening and other atypical students.

## Certification Process

### Application

The program applying for certification will send their study guide and the program certification fees to ASEM world headquarters. Programs that are not taught in English will need to provide a study guide in English.

### Program Certification Costs

Certification evaluation visit fee will be \$2,500 plus the cost of the team travel. Follow-up visits will be \$1,500. Recertification visit fee will be \$2000. The institution seeking certification will cover travel expenses of visitors in both initial and follow-up visits. ASEM will need authorization from the institution that has applied for program certification that travel costs of the certification evaluation

team will be reimbursed.