ASEM Certification

Self Study Guide

Please provide a written statement to the ASEM Office or the ASEM Executive Director Indicating how the following standards (A – D) are being met.

A. Faculty:

1. There will be one full time EM faculty member responsible for the program.
   Identify the EM faculty and state their credentials. Vita of all faculty involved in the EM program should be provided.

2. Full time faculty members will teach one-third or more of the courses. State how many of these are 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
   Determine the approximate balance between quantitative and qualitative courses. Does one type dominate or is there an appropriate balance?

2. At least one third of the curriculum will be management and management related courses.
   Identify the management and management related courses EM students are required to take. Identify others 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 or renamed OR or IE 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.
   Written project reports and videotapes of project presentations will be examined for quality of concepts, analysis and recommendations. Ability to use English grammar, 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.
   Do most students do a capstone project that integrates program concepts? Is the quality of analysis and quality of presentation master's level work? Are project topics practical or theoretical?

8. A minimum of one course in probability and statistics
   Identify the probability and statistics courses and determine if they are calculus based and include typical topics of the discipline.

9. A minimum of one course in engineering economy
   Identify the engineering economy courses and determine if they contain content beyond the normal undergraduate courses. If engineering economy concepts are taught in other courses. Identify the courses and the engineering economy topics in syllabi and student papers.

10. Two courses in quantitative analysis courses are required.
    Identify 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. Two years of engineering experience in a company based in a developed country or current full time employment in a US company as an engineer.
   Cite evidence that indicates that students have appropriate experience to understand organizational practices and problems and can apply them in the local environment.

2. For unqualified admission, a 3.0 grade point average from and ABET accredited undergraduate program. Other students may be admitted provisionally with an appropriate mathematical background equivalent to two years of calculus.
   Is there adequate evidence that admission standards ensure that the EM program is a high quality program? Discuss reasons and evidence.

3. Administration - 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?

4. Support - 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 practices**.**
   Cite evidence that the library adequately serves the range of students in the EM program. This includes DL, evening and other atypical students.

D. Administrative Support

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

Certification Decision

The Certification team will discuss findings with the appropriate university officials in the exit interview. The certification recommendation will be determined by the team and presented to the ASEM Certification College at its next meeting. The College normally meets twice each year.