



NPSMA STATEMENT OF BEST PRACTICES FOR PSM DEGREE PROGRAMS

KNOWLEDGE CORE

A Professional Science Master's degree program is centered on an area of core scientific/mathematical knowledge—core knowledge amplified through applications appropriate to the professional workplace.

I. PROFESSIONAL COMMUNICATIONS SKILLS – Effective scientific writing and oral presentation capability in a professional environment, whether scientific or non-scientific.

- a. Ability to speak extemporaneously on a completed applied project
- b. Ability to write a brief technical report
- c. Ability to design and give effective presentations

II. CORE ANALYTICAL KNOWLEDGE – quantitative skills to analyze and assess information.

- a. Knowledge of how logical arguments are developed organized and presented
- b. Ability to understand and apply statistical methods OR the ability to understand and apply decision-making models

III. CORE KNOWLEDGE OF BUSINESS MANAGEMENT – appropriate to a general business environment, such as:

- a. Ethics—understanding what behavior and actions are appropriate, both as an individual and as a member of a team
- b. Basic accounting and finance—understanding how money is handled in businesses
- c. Project management—understanding general systems management, organizational structures, and the role and composition of project teams

IV. INTEGRATION OF PSM KNOWLEDGE AND SKILLS – to make the PSM graduate a valued employee.

- a. Successful completion of an internship with a company or organization, OR successful completion of an employer-related project
- b. Team building—understanding how to work as a team member and a team leader
- c. A generalized problem-solving ability that leverages core PSM knowledge and skills

V. PROGRAM ASSESSMENT – to improve the program, and to improve how the program articulates with companies and organizations that hire PSM graduates.

- a. PSM External Committee – stakeholders outside the program provide a "reality check" at least once a year
- b. Exit interviews of PSM graduates
- c. Assessment from supervisors at companies that employ PSM students
- d. Feedback from PSM graduates at the close of their first year of employment