

# Progress Report: A PSM Program Director Initiative to Develop a Common PSM Core and Statement of Best Practices

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Through the agency of the National Professional Science Master’s Association (NPSMA), a group of PSM program directors recently began discussing what “worked best” in their PSM programs, both for employers and for graduates. The directors each had program-specific practices—mastery in using particular software or equipment—but there were a number of requirements and activities common across many programs, valued by graduates and employers alike.

Broad areas of agreement included: 1) professional communication skills; 2) core analytical knowledge; 3) core knowledge of business practices; 4) activities that integrated PSM knowledge and professional workplace skills; and 5) methods of program self assessment.

activities for each of these areas. Following this, the discussion was broadened to seek comments from program directors at several quarterly meetings of NPSMA. With their feedback, some goals were refined and others broadened—with wide support from all program directors involved.

**NPSMA** NATIONAL PROFESSIONAL SCIENCE MASTER'S ASSOCIATION

Peer Review Committee  
(a sub-committee of the NPSMA Best Practices Committee)

**STATEMENT OF BEST PRACTICES**  
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*A Professional Science Master's degree is based on a core of scientific/mathematical knowledge amplified through applications appropriate to the field of employment:*

**I. Professional Communication Skills**

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

**II. Core Analytical Knowledge**

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

**III. Core Knowledge of Business Principles**

- Ethics
- Basic Accounting and Finance
- Project Management

**IV. Integration of PSM Knowledge and Skills**

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

**V. Program Assessment**

- PSM External committee – stakeholders outside the program provide a “reality” check once a year
- Exit interviews of PSM graduates
- Assessment from supervisors at companies that employ PSM students
- Feedback from PSM graduates at the close of their first year of employment

The resulting draft, tentatively called a Common PSM Core and Statement of Best Practices, will be circulated to additional PSM audiences for comments during 2009. This poster will outline this draft PSM Core, and will explain the reasoning behind the choice of goals and activities, drawing on feedback received by PSM programs from employers and PSM graduates.