Professional Science Master’s (PSM)
and
National Professional Science Master’s Association (NPSMA)

2018
What is a PSM degree?

• Terminal STEM degree at master’s level

• Designed with employers to be responsive to their needs

• Emphasizes science plus professional skills

• Requires an industry-immersion experience, like internships or capstone projects
In what STEM areas are PSMs offered?

Areas that promise:

- Interdisciplinary careers
- Team-oriented environments
- Career advancement
- Emerging areas of science
- Opportunity to bring scientific discovery to the marketplace
What do you mean by professional skills?

Delivered as:

- Stand-alone courses online or face-to-face
- Modular add-ons
- Integrated content in STEM courses
- Cooperative efforts with other campus departments
- Cooperative efforts with employers as adjuncts, guest lecturers
Exactly how are PSMs different?

**Professional Science Master’s**
- Students develop concise business resume
- Students guaranteed to work on diverse teams
- Students speak and write for teams that include non-scientists
- Internship, capstone or experiential learning with employer involvement

**Traditional Science Master’s**
- Students develop academic curriculum vitae
- Student experience may be “self-contained”
- Students present and write for audiences with shared expertise
- Thesis with faculty supervision
PSMs are global

PSM Programs at 165 academic institutions in the U.S. and internationally in Australia, South Korea and the United Kingdom
Diverse institutions offer PSMs

Figure 1.2 Carnegie Classifications for PSM Programs

- R1: Doctoral Universities - Highest research activity
- R2: Doctoral Universities - Higher research activity
- M1: Master's Colleges and Universities - Larger programs
- R3: Doctoral Universities - Moderate research activity
- M3: Master's Colleges and Universities - Smaller programs
- M2: Colleges and Universities - Medium programs
- Other

Source: www.professionalsciencemasters.org (09/17)
PSM grads see increased earnings

![Figure 2.1 Pre-Post Change Over Time (%)]

Source: Outcomes for PSM Alumni: www.professionalsciencemasters.org

- Please describe your base ANNUAL salary for your current or pending principal job (Exclude bonuses, overtime, benefits, or secondary compensation.)

- Please describe your base ANNUAL salary for your principal job when you began your masters program (Exclude bonuses, overtime, benefits, or secondary compensation.)
“PSM graduates understand the contribution of STEM knowledge to real issues. They will become the leaders in innovation that will spur the next generation of economic development.”

Dr. James Moran
Vice Chancellor
Pennsylvania State System of Higher Education (PASSHE)

“PSM graduates come out of their programs ready to contribute. They have the technical skills, problem solving skills, and communication skills needed to integrate quickly and be successful in the workplace”

Todd Arnold, Ph.D.
Chief Laboratory Operations Officer, Sema4
PSMs are a WIN-WIN-WIN-WIN

- **Students** enter a viable pathway to an advanced science degree and career without the PhD.

- **Academic institutions** offer valuable degrees providing career options and workforce solutions.

- **Employers** gain a technically and professionally trained cadre of workers ready to contribute on day one.

PSM graduates are more likely to be employed in the state / region in which they earn the degree, contributing to local and regional economic development.
How can I connect with other PSM programs?

National Professional Science Master’s Association (NPSMA)
What is the NPSMA?

The National Professional Science Master’s Association “…supports PSM programs, engages businesses, industries, non-profit organizations, and government agencies, and promotes the PSM as a graduate degree-of-choice for students in science, mathematics, and technology.” (NPSMA Bylaws)
What does the NPSMA offer?

- Annual conference
- Topical workshops
- Webinars
- Resources for program directors
- INNOVATOR publication
- Regular newsletters
- Site visits
- Awards and recognitions
PSM for Our State

“PSM for Our State” is a two-year growth and awareness campaign focused on two major goals:

• Strengthening the position of PSMs locally, regionally, and nationally through a focus on messaging and media; and,

• Taking intentional steps to bring the advantages of the PSM to all 50 states
For more information

Visit

https://www.professionalsciencemasters.org/

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