

M.S in Integrated Scientific Applications



MSISA

The business of science

Millersville University

Strong Science Core. Robust Business Focus

Our mission...

To produce exemplary professionals with cross-disciplinary scientific skills and business knowledge.

Program Coordinator

Dr. Richard Clark
717-871-7434
Richard.Clark@millersville.edu
<http://mville.us/msisa>
Millersville, PA 17555



Program: 36 credits, non-thesis, Professional Science Masters (PSM); created as an administrative umbrella for any specialization

Core: (18 c.h.) Courses tailored for the MSISA program

- Strategy and Policy
- Operations Management
- Environmental Economics and Policy
- Statistics for Scientific Applications
- Accounting and Finance
- Field Experience Practicum



Specializations: (18 c.h.)

Weather Intelligence and Risk Management

- Weather Derivatives and Valuation, Weather Risk Management, Emergency Management Planning, GIS, Writing course, Electives



Climate Science Applications

- Climate Science: Evidence, Consensus, Uncertainty, Climate Science Applications, Global Markets: Sensitivity and Susceptibility to Weather and Climate, Energy and Climate Policy, Nature & Society in Global Environmental Policy and Negotiations, Electives



Environmental Earth Systems Management

- Environmental Sustainability, Environmental Earth System Management, Stormwater Management, GIS, Environmental Chemistry, Environmental Planning, Electives



Geoinformatics

- Advanced GIS with Geoinformational Case Studies, Spatial Data Structures, Earth Imaging and Data Processing, Remote Sensing and Image Interpretation, Geoinformatics Applications, Electives



Business Ready Scientists



Mike Charnick: NWS, Grand Junction, CO. Forecaster, project management



Timothy Loftus: Business Weather Analyst, AccuWeather; Job offer stemming from AMS Forum presentation.

Amanda Koppel: Environmental Scientist at CEDARVILLE Engineering Group



Amanda Mitchell: Integrity Applications Incorporated (IAI) a contracting support for NOAA's Technology, Planning and Integration for Observations (TPIO) group



Kevin Sinwell: Risk Management Analyst at Assurant Specialty Property in Atlanta.

Millersville Meteorology

Deep and Broad

New perspectives

- New expanded emphasis in Atmospheric Radiative Transfer
- Academic Minor in **HelioPhysics and Space Weather**
 - Field component to obtain high-altitude profiles of X-rays, Gamma Rays, UVA/B, H- α observations, CME modeling
- Multidisciplinary minor in **Data Analytics**
- New computer cluster for modeling (WRF, HELIO-XM, Stormwater)
- Field Research – 62/110 students involved in airborne research with Wyoming K/A
- Academic minor in **Emergency Management**
- **M.S. in Emergency Management**
 - Center for Disaster Research and Education
 - Weather Ready Nation Ambassador
- AMS Student Chapter

