### The MSISA Program

**Millersville University’s Master of Science in Integrated Scientific Applications (MSISA)** provides individuals with the opportunity to acquire a master’s level education that will combine a specific science specialization with the business and professional skills that are highly valued by employers. The MSISA addresses the growing need in the marketplace for a scientifically astute, technical competent workforce beyond the baccalaureate degree with a broader set of skills that are necessary for teamwork, collaboration, and decision-making in the business environment. Upon completion of the program, students will enter the workforce with advanced cross-disciplinary scientific and technical expertise coupled with strong business acumen to manage complex projects. The MSISA is designed for flexibility and agility for meeting existing and emerging challenges and opportunities of a changing workforce. The program offers specializations in Climate Science Application (CSA), Weather Intelligence and Risk Management (WIRM), Environmental Systems Management (ESM), and GeoInformatics (GI). These specializations are designed to train students in integrative disciplines that should remain at the forefront throughout their careers and build knowledge that can transfer to other practical science applications. The curriculum is designed to integrate science content, methods and tools for information analysis, and management and policy skills that are needed for careers as the go-to science person in business, industry, commerce and government.

### Environmental Systems Management (ESM)

The Environmental Systems Management (ESM) specialization at Millersville University integrates broad expertise in environmental studies from across several departments and disciplines in the development of the ESM curriculum. Expertise from Earth Sciences, Geography, Biology, Chemistry, Computer Science, Economics, Industry and Technology, and the Center for Environmental Sciences, are shareholders in this approach to the curriculum. The ESM curriculum prepares students for careers that bridge earth and environmental systems science with competencies in business and information management, geospatial applications, environmental economics and ethics and leadership skills. Environmental risk management, water resource management, operations coordination, watershed sustainability management, environmental policy and environmental law are but a few of the job areas that are relevant to this specialization.
ESM Curriculum

- 36 credit hours including internship
- 6 courses in MSISA core; 4 courses in track
- non-thesis with 3-credit practicum or research project

Courses required by all MSISA:
- Statistical Methods I
- Environmental Economics and Policy
- Business Operations and Analysis (Online)
- Accounting and Finance (Online)
- Strategic Management/Leadership (Online)
- Information Analysis or GIS Applications for Emergency Management
- Practicum or research experience

ESM Track:
- Sustainability: Science and Policy
- Environmental Systems Management: Land, Water, Energy
- Environmental Risk Management w/ Case Studies
- Environmental Impacts Assessment

Admission Requirements

As an interdisciplinary program, MSISA is designed to attract students from a wide range of scientific, mathematics, and technology disciplines. Applicants must provide the following:

• A completed graduate application form and application fee
• Official transcript from all institutions of higher education attended. An applicant must verify completion of a baccalaureate degree from an accredited institution with a minimum of a 2.75/4.00 cumulative GPA
• Official GRE, GMAT, or MAT test scores taken within three years of the date of application
• Three professional letters of recommendation from academic institutions or professional settings
• Successful completion of a telephone interview with the MSISA program coordinator
• Current professional resume
• Other supplemental information that may be identified by the MSISA program coordinator to help determine an applicant’s likelihood of success in the program.

Visit us:
mville.us/msisa

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MSISA
“The Business of Science”