Information Analyst Curriculum Program at James Madison University

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The purpose of the proposed Information Analyst program is to develop skilled practitioners who can translate data and information into useful knowledge for decision making in the public and private sectors. Currently the Federal Government has un unmet need of 29,000 Analysts.

Program History

- Deliverable for Critical Infrastructure Protection Program

- Interdisciplinary team of faculty members formed in January 2004 to develop the curriculum.

- Focus Group of leaders from government and industry met to provide insight to curriculum development in May 2004.

- Curriculum proposal developed and submitted to ISAT Curriculum and Instruction Committee- September 2005.

The program focuses on:

- Critical Thinking
- Pattern Matching
- Data Fusion
- Technical Communication
- Creating Intelligence from existing data
- Ethical Components

Three Tracks of Study:

- National Security

- Competitive Analysis

- Modeling, Simulation, Visualization, and Emergency Management

Support

The program has been reviewed and supported by:

- The National Security Agency
- The Central Intelligence Agency
- The Federal Bureau of Investigation
- IBM
- Intel Corporation
- Office of Senator John Warner

Objectives

- Identify, formulate, analyze, and solve complex, real-world problems and understand their societal implications using a variety of critical thinking tools and methodologies.

- Access and critically analyze data from multiple sources.

- Use computer-based and mathematical tools to effectively analyze and display information.

Objectives

- Analyze problems within broader global, political, economic, technological and social contexts.

- Work effectively in a variety of roles on multidisciplinary teams.

- Communicate problem analysis effectively, including social, economic, political, scientific, and technical matters.

- Understand and apply the principles of professional ethics.

Critical Thinking

- Through the Department of Philosophy, new courses have been developed to be included in the existing IA curriculum
  – Causal Thinking
  – Counterfactual Reasoning
  – Rational Decision Theory
- Collaboration with the NSA to establish standards for critical thinking across the intelligence community
- Assessment tool developed to test critical thinking abilities based on the Cornell Critical Thinking Test

Tools

- Causeway: Designed to assist people in analyzing complex problems and issues, especially when empirical information is sparse or uncertain.

Structured Analysis Evidentiary System (SEAS): A software tool developed for intelligence analysts that records analytic reasoning and methods, supports collaborative analysis across contemporary and historical situations and analysts, and has broad applicability beyond intelligence analysis

Foreign Language

- JMU will develop a language learning lab utilizing up-to-date language learning software and staffed by professionals skilled in language acquisition.

- Students would learn languages in a self-paced lab environment, augmented by periodic study groups, conversation sessions with native speakers, and followed in some cases by short language immersion programs in other countries

Personnel

- Dr. John B. Noftsinger, Jr., Associate Vice President
- Dr. A. Jerry Benson, Dean
- Dr. Stephen H. Stewart, Director – External Relations
- Dr. Ronald Kander, Department Head
- Dr. Robert Kolvoord, Professor – Integrated Science and Technology
- Dr. Noel Hendrickson, Assistant Professor - Philosophy
- Mr. Kenneth F. Newbold, Jr. Associate Director