In-Residence Program with Flexible Start Dates

This three-course program is taught on the NPS campus in Monterey, CA, typically starting in the Fall. The elective can be taken anytime, though it is preferred that it comes before MA4404.

Prerequisite

Discrete Mathematics
(MA3025, MA2025, MA1025, or equivalent)

Curriculum

Graph Theory and Applications

And One Elective:

Network Traffic Analysis, Network Flows and Graphs, Cooperation and Competition, Topics in Network Science, Wireless Communications Network Security, Models of Conflict, or Tracking and Disrupting Dark Networks

Structure and Function of Complex Networks

Student with Program Manager, Professor Ralucca Gera

"The world is a complex place. We must embrace the complexity in our scientific techniques or be irrelevant."

-Brigadier General (ret.) Chris Arney, PhD

Director, Network Science Center (U.S. Military)

APPLIED MATHEMATICS
NAVAL POSTGRADUATE SCHOOL

Contact Information

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www.nps.edu/math/NetSci

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- **Cyber!**

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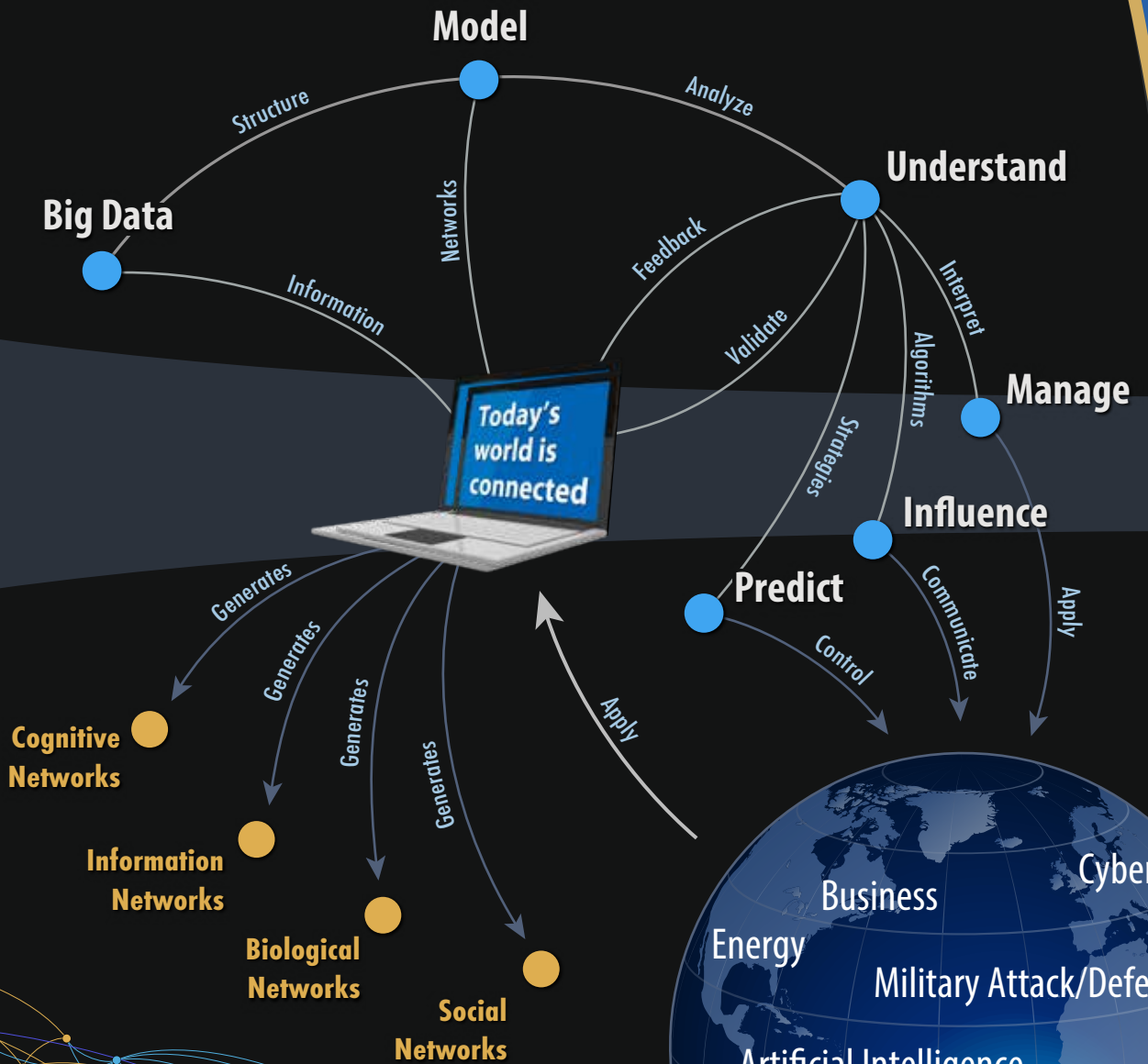
NETWORK SCIENCE CERTIFICATE

Enhancing Your Career

As the world we live in transitions from the Information Age to the "age of connectedness," the NPS **Network Science Certificate** arms its graduates with the foundation to understand the underlying complexity of networks—**the building blocks of connectedness**—and enables them to succeed **with greater interpretation and further development of practical methods, models, and approaches to problems**.

A New Science

Networks define the world around us!
This certificate provides an interdisciplinary education using mathematical methods for the analysis, understanding, and exploitation of complex networks, which include techno-logical, biological, and social networks. Having a robust understanding of underlying mathematics is essential for accurate network modeling and data analysis needed to make predictions or influence and manage networks across sectors of industry and government. This innovative program provides students an opportunity to understand and apply a new science that will define the next generation.

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Big Data

Structure

Analyze

Networks

Information

Understand

Feedback

Validate

Interpret

Algorithms

Manage

Today's world is connected

Strategies

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Apply

Cognitive Networks

Information Networks

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Military Attack/Defense

Artificial Intelligence

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