PUBLIC INFORMATICS CERTIFICATE
PLUS MPI AND DUAL DEGREE INFORMATION
PROGRAM OVERVIEW

• SMALL PROGRAM AT A LARGE RESEARCH 1 UNIVERSITY

• COLLABORATIVE ENVIRONMENT IN AN INTERDISCIPLINARY SCHOOL

• STRONG LINKAGES TO OTHER SCHOOLS AND PROGRAMS AT RUTGERS UNIVERSITY
PROGRAM

GOAL

• SOCIETY IS AWASH IN DATA. WE NEED TRAINED, PUBLIC-MINDED PROFESSIONALS WHO CAN THINK CRITICALLY ABOUT HOW TO USE THAT DATA EFFICIENTLY AND ETHICALLY
Jim Samuel, Ph.D., Program Director
Clinton J. Andrews, Ph.D.
Juan Ayala, M.Arch.
Soumitra Bhuyan, Ph.D.
Radha Jagannathan, Ph.D.
Michael L. Lahr, Ph.D.
Robert B. Noland, Ph.D.
Marc H. Pfeiffer, M.P.A.
Will B. Payne, Ph.D.
Kelcie Ralph, Ph.D.
Gavin Rozzi, M.S.
Eric Seymour, Ph.D.
Michael Smart, Ph.D.
Piyushimita (Vonu) Thakuriah, Ph.D.
Wenwen Zhang, Ph.D.
ADVISING, SUPPORT, AND OPPORTUNITIES

• DEDICATED FACULTY ADVISER AND STUDENT LISTENING SESSIONS
• EXTENSIVE RESEARCH OPPORTUNITIES THROUGH NUMEROUS RESEARCH CENTERS AND INSTITUTES
• ROBUST STUDENT SERVICES DIVISION INCLUDING CAREER SERVICES
• 2 COMPUTER LABS, EXTENSIVE LIBRARY OF SOFTWARE AND EXCELLENT TECHNICAL SUPPORT
• PUBLIC INFORMATICS STUDENT GROUP
• ACTIVE STUDENT GOVERNMENT
• LANGUAGE CAFÉ
• LARGE ALUMNI NETWORK

Public Informatics Student Group

Mission Statement

The Public Informatics Student Group (PISG) creates exploration within the student body by applying and using information, computing technology, and data in the contexts of public service and the urban environment.
CERTIFICATES

STANDALONE PI CERTIFICATE

• 34:833:525 APPLIED MULTIVARIATE METHODS OR 34:970:630 DISCRETE CHOICE METHODS*

• 34:816:502 THEORY AND PRACTICE OF PUBLIC INFORMATICS

• 34:816:634 MACHINE LEARNING FOR PUBLIC INFORMATICS

• URBAN AND PUBLIC INFORMATICS ELECTIVE SUCH AS 34:970:510 GRADUATE PLANNING STUDIO OR 34:970:591 INTRODUCTION TO GIS

OTHER DEGREE + PI CERTIFICATE

• USE MCRP/MPP/MHA ELECTIVES TO TAKE THESE 4 COURSES

*Take or waive out of prerequisite: Basic Quantitative Methods
COURSE WAIVERS

• WAIVERS ALLOW YOU TO SKIP A COURSE, NOT CREDIT UNITS.

• COMMON WAIVERS:
  • BASIC QUANTITATIVE METHODS – BASED ON PLACE-OUT EXAM
  • INTRODUCTION TO GIS (GEOGRAPHICAL INFORMATION SYSTEMS)

• IF YOU ARE WAIVED FROM A REQUIRED COURSE, YOU CAN TAKE AN ELECTIVE OR HIGHER-LEVEL COURSE.

• YOU NEED TO COMPLETE THE SAME AMOUNT OF DEGREE CREDITS FOR GRADUATION.

Bikeshare trip generation in New York City
• BACKUP SLIDES
DEGREE OPTIONS

- Master of Public Informatics (MPI)
  36 credits (12 courses)

- MPI & Master of Public Policy
  60 credits (20 courses)

- MPI & Master of City and Regional Planning
  60 credits (20 courses)
MPI DEGREE REQUIREMENTS (36)

- Theory and Practice of Public Informatics (3 credits)
- Applied Multivariate Methods (3) or Discrete Choice Methods (3)
- Machine Learning for Public Informatics (3)
- Graphical Communication (3) or Data Visualization (3)
- Introduction to GIS (3)
- Topics in GIS (3)
- Four courses (12) in an application area →
  - Two additional elective courses (3, 3)
- Four courses (12) in an application area:
  - Planning Option:
    - Studio I (3)
    - Studio II (3)
    - Two electives (3, 3)
  - Policy Option:
    - Research Practicum I (3)
    - Research Practicum II (3)
    - Two electives (3, 3)
  - OR as approved, e.g., Health Administration
MPI ELECTIVE COURSES

• GLOBAL ANALYTICS (3) LAHR
• ROBOTICS & SOCIETY (3) SALZMAN
• ARTIFICIAL INTELLIGENCE - PRACTICE, STRATEGY & ETHICS (3) SAMUEL
• INFORMATICS STUDIO (3) SAMUEL

• UNDER DEVELOPMENT:
  • ENERGY ANALYTICS
  • 1-CREDIT MODULES
TYPICAL MPI COURSE SCHEDULE

• Fall (Semester 1)
  • 34:816:501 Theory & Practice of Public Informatics (3)
  • 34:970:527/833:525 Applied Multivariate Methods (3)
  • 34:970:590 Graphical Communication (3)
  • Elective

• Fall (Semester 3)
  • Topics in GIS (3)
  • Planning: Studio II (3) OR Policy: Elective (3)
  • Elective (3)
  • Elective (3)

• Spring (Semester 2)
  • 34:833:633 Machine Learning for Public Informatics (3)
  • Planning: Elective OR Policy: 34:833:641 Policy Practicum II
  • 34:970:591 Intro to GIS for Planning and Public Policy (3)

• Summer (between Spring & Fall)
  internship/project experience
  • *If a student has had a course similar to Intro to GIS or Graphical Communication, he/she may be advised/required to take more advanced level course within subject matter: Data Visualization for Policy and Administration (3 credits); Remote Sensing (3 credits); Web Programming (3 credits); Graduate Seminars on Advanced Topics (3 credits), such as participatory GIS, open-source informatics, sensors & drones, or public database management; Directed Study in Public Informatics (3 credits)

Online & In person
CONCENTRATIONS

• BUDGET AND FINANCE
• ECONOMICS
• EDUCATION
• ENERGY
• ENVIRONMENT
• GEOGRAPHICAL INFORMATION SYSTEMS
• HEALTH
• LABOR AND WORKFORCE
• MANAGEMENT

• METHODS
• NON-PROFIT MANAGEMENT
• POLITICAL PROCESSES AND INSTITUTIONS
• PUBLIC POLICY
• SOCIAL JUSTICE AND ADVOCACY
• SOCIAL POLICY AND WOMEN’S ISSUES
• TRANSPORTATION
• URBAN POLICY AND COMMUNITY DEVELOPMENT
• SELF-CREATED