#### A Master of Science Degree in Computational Analysis and Public Policy

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## Need for the program

- Demand for individuals with information technology skills in the public sector
  - CIO, CDO, CTO
  - Analysts/Researchers
  - Consultants on IT Projects
  - At the municipal, state and federal level
- Many programs teaching data science
- None that we know of the combine substantive and technical in a two-year degree



# Collaboration

- Approved by University Senate in Spring 2013
- Joint program with the Harris School of Public Policy Studies and the Department of Computer Science (Physical Sciences Division)
- Harris provides administrative support
- Includes participation from the Computation Institute, particularly Urban Center for Computation and Data, which brings to gether social scientists and computer scientists to conduct research
- Chris Berry, Harris faculty lead and Anne Rogers, CS faculty lead



|        | Fall   | Winter                                       | Spring                                       |
|--------|--|--|--|
| Year 1 | Statistics I [H]                             | Statistics II                                | Introduction to Data Analytics<br>[CS] (new) |
|        | Computer Science with<br>Applications 1 [CS] | Computer Science with<br>Applications 2 [CS] | Computer Science with<br>Applications 3 [CS] |
|        | Microeconomics I [H]                         | Microeconomics II [H]                        | Integrative Seminar                          |
| Summer | Internship                                   | Internship                                   | Internship                                   |
| Year 2 | Political Economy for Public<br>Policy [H]   | Decisions and Organizations [H]              | Elective                                     |
|        | Databases [CS}                               | Elective                                     | Elective                                     |
|        | Curricular path course                       | Curricular path course                       | Curricular path course                       |

#### **Computer Science**

- Programming sequence, the CAPP students will have their own Ph.D. student-TA to address their needs
- An assessment will be made at the beginning of the school year, in case student has extensive programming experience



## Specialization

 In the second year, we will encourage students to concentrate in a substantive area of public policy or a methodological area.

- Energy, Education, Child and Family Policy ...
   OR
- Survey methods, Advanced Data Analytics, Information Policy (Privacy)



## Internship

- One key to integrating learning from the statistics/econometrics and the data analytics classes
- Ability to experience practical challenges
- Range of potential placements:
  - Government (city, county, state, federal)
  - Non-profits
  - Private firms working with public sector



## Seminar

- Address the issues of the different cultures/approaches/context/jargon in social sciences and computer science
- Speakers from policy settings
- Faculty utilizing computational methods to address public policy issues



## Admissions

- Initially had a target of 5-10 students
- Received 100+ applications and still receiving them
- Accepted 25 students
- High yield



#### More information

http://capp.sites.uchicago.edu/

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