

34:833:521/34:970:515 (fall, spring)
Basic Quantitative Methods
 Jagannathan
Descriptive statistics
Basic inferential statistics

34:833:530 (fall)
Research Design
 Hetting
Formulating questions and hypotheses
Measurement
Experimental and nonexperimental design
Internal and external validity

34:970:516 (fall, spring)
Planning Methods
 Smart, Shih
Intro to Qualitative Methods
Applied demography
Applied regional economics
Financial calculations
Intro to Fiscal Impact Analysis

34:833:632 (spring) Rec: Econ for Policy
Cost-Benefit Analysis
 Shapiro
Theory
Application
Cases

34:816:637 (spring)
Global Data Analytics
 Lahr
Data analysis
Use big data sets on national accounts and commodity trade flows
Multinational input-output analysis
Computable general equilibrium modeling
Use R

34:970:590 (fall, spring)
Graphical Communication for Planners
 Ayala
Planning process method
Analyze maps, plans, drawings
Display technical & analytical maps
Render illustrative maps, plans & drawings
Visualization, design composition techniques

34:970:593 (fall) Prereq:34:970:590
Advanced Graphical Communication
 Ayala
Advanced methods in visualization
3D Modeling, visual simulations, animations

34:970:630 (spring) Prereq: BQM
Discrete Choice Methods
 Jagannathan
Review of OLS
Panel/IV regression
Logit/probit regression
Ordered logit/probit
Multinomial/conditional logit

34:833:525/34:970:527 (fall, spring) Prereq: BQM
Applied Multivariate Methods
 Mouzon
Advanced recoding and computing; data cleaning
Ordinary least squares regression
Binary logistic regression
Ordinal logistic regression

34:816:502 (fall) Prereq: BQM
Public Informatics Theory and Practice
 Andrews
Introduction to Stat Inference with R
Applications of Public Informatics
Ethical and privacy issues

34:970:653 (spring 21, alt years) Prereq: BQM
Case Study Methods
 O'Neill
Case study methods
Differentiating and combining case- and variables-based approaches
Concept formation and research design in case studies
Using case studies to test hypotheses or to explain mechanisms
Comparisons, examining a case over time, identifying contingencies

34:833:537 (fall) Rec: BQM
Survey Research
 Simone
Questionnaire design and sampling
Survey administration
Data reduction and data analysis

34:833:684 (fall) Rec: BQM
Data Visualization for Policy, Planning, and Administration
 Miller
Create common visual formats
Effective display of data
Excel and PowerPoint skills
Criteria for choosing a chart type
Communication

34:833:628 (spring) Rec: BQM
Advanced Qualitative Methods
 Rubin
Individual & group interviewing
Qualitative research design
Observation & participant observation
Case studies & grounded theory building
Participatory Action Research

→ Solid lines/arrow link **required** prerequisites

- - - Dashed lines link **recommended** prerequisites

34:833:633/34:970:634 (spring) Prereq: Discrete or Applied Multivariate
Big Data Analytics
 Felder
Using big datasets
Using R
Data analysis

34:970:594 (f20) Prereq: BQM + Discrete or Applied Multivariate
Program Evaluation
 Jagannathan
Needs assessment
Measurement
Implementation evaluation
Impact evaluation designs
Impact evaluation methods

34:833:607/34:970:607 (fall) Prereq: BQM; Recom: Discrete/Multivariate
Writing about Quantitative Research
 Miller
Written and oral scientific communication
Review and application of study design and measurement
Review and application of OLS and logit regression
Table, chart, and slide design

34:970:591 (fall, spring)
Intro to GIS for Planning and Public Policy
 Smart, Staff
GIS basic concepts
ArcGIS

34:970:592 (fall, spring) Prereq: (34:970:591)
Topics in GIS
 Wiggins
Advanced GIS topics
Spatial statistics
ArcGIS and extensions

16:455:501 (spring) Prereq: (591, 592)
Seminar in Geospatial Info Science
 Wiggins and Lathrop
Advanced GIS research topics

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