Data Science Major with Sociology Cognate Requirements
Catalog Year: 2013-14
Degree: Bachelor of Science
Credit Hours: 69+

“PR” indicates a pre-requisite. “CO” indicates a co-requisite.

Courses within this major may also satisfy general education requirements. Please consult http://registrar.cofc.edu/general-edu for more information.

Required Courses
- DATA 101 Introduction to Data Science (3) PR: None
- DATA 210 Dataset Organization and Management (3) PR: None
- DATA 495 Data Science Capstone (3) PR: DATA 210, CSCI 470, and MATH 441

Math Requirement
- MATH 120 Introductory Calculus (4) PR: Placement or C- or better in MATH 111
- MATH 203 Linear Algebra (3) PR: MATH 220 or instructor permission
- MATH 207 Discrete Structures I (3) PR: MATH 105, MATH 111, or MATH 120
- MATH 220 Calculus II (4) PR: MATH 120 or HONS 115
- MATH 250 Statistical Methods I (3) PR: MATH 111 or MATH 120 or instructor permission
- MATH 350 Statistical Methods II (3) PR: MATH 120, MATH 250
- MATH 440 Statistical Learning I (3) PR: MATH 203, MATH 220, MATH 350
- MATH 441 Statistical Learning II (3) PR: MATH 440

Computer Science Requirement
- CSCI 220 Computer Programming I (3) PR: CSCI 120 or CSCI 180 or CSCI 210 or MATH 111 CO: CSCI 220L
- CSCI 220L Computer Programming I Lab (1) CO: CSCI 220
- CSCI 221 Computer Programming II (3) PR: CSCI 220, CSCI 220L; CO or PR: MATH 207
- CSCI 230 Data Structure and Algorithms (3) PR: CSCI 221, MATH 207
- CSCI 310 Advanced Algorithms (3) PR: CSCI 230, MATH 207
- CSCI 334 Data Mining (3) PR: CSCI 221, MATH 207, MATH 250
- CSCI 470 Principles of Artificial Intelligence (3) PR: CSCI 230, MATH 307

Select a cognate from the following: Accounting, Biomechanics, Customer Relationship Management, e-Commerce, Economics, Exercise Physiology, Finance, Geoinformatics, Molecular Biology, Organismal Biology, Physics and Astronomy, Psychology, Sociology and Supply Chain Management.

Sociology Cognate Requirements (15 credit hours)
- SOCY 101 Introduction to Sociology (3) PR: None
- OR SOCY 102 Contemporary Social Issues (3) PR: None

AND
Select one course from the following in consultation with the cognate director:

☐ SOCY 331  Society and the Individual (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 332  Collective Behavior (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 335  Aging and the Family (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 336  Death and Dying (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 337  Prejudice (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 339  Special Topics in Social Psychology (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 340  Medical Sociology (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 341  Criminology (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 342  Juvenile Delinquency (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 344  Social Gerontology (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 345  Social Policy (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 346  Environmental Sociology (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 348  Sociology of Alcohol and Drugs (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 349  Special Topics in Social Problems (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 351  Urban Sociology (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 352  Population and Society (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 355  Science Technology and Society (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 356  Sociological Perspectives on Religion (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 357  Political Sociology (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 358  Living in an Organizational World (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 359  Special Topics in Social Organization (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 360  Class, Power, and Privilege (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 361  Child Welfare (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 362  Social and Cultural Change (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 364  Gender and Society (3) PR: SOCY 101 or HONS 167 or SOCY 102
☐ SOCY 365  Sociology of Music (3) PR: SOCY 101 or HONS 167 or SOCY 102
SOCY 366  Race and Ethnic Relations (3) PR: SOCY 101 or HONS 167 or SOCY 102

SOCY 369  Special Topics in Social Inequality (3) PR: SOCY 101 or HONS 167 or SOCY 102

SOCY 390  Senior Seminar (3) PR: SOCY 101 or SOCY 102, SOCY 260, SOCY 271, SOCY 272, and 18 credit hours in the SOCY major, or instructor permission

Select 3 credit hours from the following in consultation with the cognate director:

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SOCY 381  Internship (1-6) PR: SOCY 101 or HONS 167 or SOCY 102; junior standing; declared sociology majors only; B average in sociology and overall average of C+; 12 credit hours in sociology or instructor permission

SOCY 382  Student Research Apprenticeship in Sociology (1-6) PR: SOCY 101 or HONS 167 or SOCY 102

SOCY 399  Tutorial (3, Repeatable up to 12) PR: Junior standing, tutor permission, department chair permission

SOCY 490  Independent Study (1-3) PR: SOCY 101 or HONS 167 or SOCY 102; junior standing, overall SOCY GPA of at least 3.000, overall GPA of at least 2.50, instructor permission

SOCY 499  Bachelor’s Essay (6) PR: SOCY 101 or HONS 167 or SOCY 102; a project proposal must be submitted in writing and approved by the department prior to registration for the course