

# B.A. IN DATA ANALYTICS

Faculty Advisor: Dr. Kevin Egan, Economics

The analysis of big data requires people trained in the social sciences who can effectively develop and utilize the data that they are able to access. Analysts need to understand how people think and behave, and interpret data in relation to that human element.

Given this, the College of Arts and Letters is able to provide a unique undergraduate program in data analytics through our social science curriculum and faculty strengths. In this major, you will develop the quantitative and methodological skills to employ analytical techniques, work with big data sets, and make sense of analytical results within the framework of social and cognitive behaviors and population trends.

Code	Title	Hours
DANN 2000	Proseminar in Data Analytics I	1
DANN 4000	Proseminar in Data Analytics II	2
<i>Choose one of the following:</i>		3
PSY 2100	Statistical Methods	
SOC 3290	Social Statistics	
GEPL 4420	Quantitative Methods in Geographic Research	
<i>Choose one of the following:</i>		3
PSY 3110	Research Methods In Psychology	
PSC 3150	Research and Writing in Political Science	
SOC 3270	Social Research Methods	
<i>Following six course are required</i>		
ECON 2810	Introduction to Econometrics	3
ECON 3810	Applied Econometrics	3
GEPL 4110	Geographic Information Systems	3
CSET 1100	Introduction to Computer Science and Engineering Technology	4
CSET 3300	Database-Driven Web Sites	4
ART 2800	Visual Literacy-Data Visualization	3
<i>Choose one of the following</i>		3
PSC 3250	Public Opinion	
PSY 3750	Science and Pseudoscience	
<i>Choose one of the following</i>		3
PHIL 3140	Computers And Culture	
PHIL 3160	Data Science Ethics	
<b>Total Hours</b>		<b>35</b>

This major calls for specific courses to be taken to fulfill the 18 credit related category. Within that category for DAAN majors, an area of concentration is required in one of the following subjects: Economics, Geography and Planning, Political Science and Public Administration, Psychology, Sociology or Anthropology. Alternatively, this requirement can also be satisfied through earning a minor in an approved social science. Consult with the program advisor when selecting courses to fulfill this requirement.

First Term		Hours
AR 1000	First Year Orientation	1
MATH 1180	Reasoning With Mathematics	3
ENGL 1110	College Composition I	3
CSET 1100	Introduction to Computer Science and Engineering Technology	4
Arts/Humanities Core		3
Social Sciences Core		3
<b>Hours</b>		<b>17</b>

Second Term		Hours
ENGL 1130	College Composition II: Academic Disciplines And Discourse	3
DANN 2000	Proseminar in Data Analytics I	1
Natural Sciences Core		3
Social Sciences Core		3
Diversity of US		3
Social Sciences Core (History)		3
<b>Hours</b>		<b>16</b>

Third Term		Hours
PSY 2100	Statistical Methods	3
ART 2800	Visual Literacy-Data Visualization	3
ENGL 2710	Reading Fiction	3
Elementary Foreign Language I		4
Non#US Diversity		3
<b>Hours</b>		<b>16</b>

Fourth Term		Hours
ECON 2810	Introduction to Econometrics	3
CSET 3300	Database-Driven Web Sites	4
PSY 3110	Research Methods In Psychology	4
Elementary Foreign Language II		4
<b>Hours</b>		<b>15</b>

Fifth Term		Hours
GEPL 4110	Geographic Information Systems	3
ECON 3810	Applied Econometrics	3
PSC 3250	Public Opinion	3
Intermediate Foreign Language I or approved culture course		3
Related Concentration Elective or minor course		3
<b>Hours</b>		<b>15</b>

Sixth Term		Hours
PHIL 3160	Data Science Ethics	3
Intermediate Foreign Language II or approved culture course		3
Related Concentration Elective or minor course		6
Arts/Humanities Core (Fine Art)		3
<b>Hours</b>		<b>15</b>

Seventh Term		Hours
Related Concentration Elective or minor course		6
Electives		6
<b>Hours</b>		<b>12</b>

**Eighth Term**

DANN 4000	Proseminar in Data Analytics II	2
Natural Sciences Core & Lab		4
Related Concentration Elective or minor course		3
Electives		5
<b>Hours</b>		<b>14</b>
<b>Total Hours</b>		<b>120</b>

1. Students will learn and apply skills in multivariate statistical analysis to social science data.
2. Students will construct databases and learn to manipulate them with various techniques to use the data to answer their quantitative question of interest.
3. Students will describe and evaluate various social and ethical issues related to the use of data analytics.
4. Students will summarize and assess the importance of social context in analyzing social data.
5. Students will recognize the strengths and limitations of quantitative analysis of social phenomenon.
6. Students will effectively communicate the importance of their data analysis through written work and/or oral presentations.