

Program Change Request

Date Submitted: 12/22/21 2:05 pm

Viewing: **DTSCBS-SODA : Data Science: Social**

Data Analytics Concentration

Last approved: 05/18/21 6:53 pm

Last edit: 01/06/22 1:21 pm

Changes proposed by: schubert

Catalog Pages Using
this Program

[Data Science B.S. with Social Data Analytics Concentration](#)
[Data Science \(DTSC\)](#)

Submitter:	User ID:	schubert	Phone:
5-2264			
Program Status	Active		
Academic Level	Undergraduate		
Type of proposal	Concentration		
Select a reason for this modification			
Making Minor Changes to an Existing Certificate or Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding/changing Focused Study or Track)			
Effective Catalog Year	Fall 2022		
College/School Code	College of Engineering (ENGR)		
Department Code	Department of Engineering Dean (ENGD)		
Program Code	DTSCBS-SODA		
Degree	Bachelor of Science		
CIP Code			

In Workflow

1. ENGR Dean Initial
2. Director of Curriculum Review and Program Assessment
3. Registrar Initial
4. Institutional Research
5. ENGD Chair
6. ENGR Curriculum Committee
7. ENGR Faculty
8. ENGR Dean
9. ARSC Dean
10. WCOB Dean
11. Global Campus
12. Provost Review
13. University Course and Program Committee
14. Faculty Senate
15. Provost Final
16. Registrar Final
17. Catalog Editor Final

Approval Path

1. 12/23/21 2:24 pm
Kevin Hall (kdhall):
Approved for ENGR
Dean Initial
2. 01/05/22 1:09 pm
Alice Griffin
(agriffin): Approved
for Director of

Curriculum Review
and Program
Assessment

3. 01/06/22 1:24 pm
Gina Daugherty
(gdaugher):
Approved for
Registrar Initial
4. 01/06/22 3:51 pm
Doug Miles
(dmiles): Approved
for Institutional
Research
5. 01/20/22 1:12 pm
Kevin Hall (kdhall):
Approved for ENGD
Chair
6. 01/20/22 1:16 pm
Manuel Rossetti
(rossetti): Approved
for ENGR
Curriculum
Committee
7. 01/20/22 3:21 pm
Kevin Hall (kdhall):
Approved for ENGR
Faculty
8. 01/20/22 3:41 pm
Kevin Hall (kdhall):
Approved for ENGR
Dean
9. 01/20/22 4:10 pm
Jeannie Hulen
(jhulen): Approved
for ARSC Dean
10. 01/25/22 11:21 am
Karen Boston
(kboston):
Approved for WCOB
Dean

- 11. 01/25/22 11:22 am
Suzanne Kenner
(skenner): Approved
for Global Campus
- 12. 02/02/22 8:44 am
Ketevan
Mamiseishvili
(kmamisei):
Approved for
Provost Review

History

- 1. May 7, 2020 by Lisa
Kulczak (lkulcza)
- 2. May 8, 2020 by
Charlie Alison
(calison)
- 3. May 18, 2021 by
Karl Schubert
(schubert)

30.3001 - Computational Science.

Program Title

Data Science: Social Data Analytics Concentration

Program Delivery

Method

On Campus

Is this program interdisciplinary?

Yes

College(s)/School(s)

College/School Name
College of Engineering (ENGR)
Fulbright College of Arts and Sciences (ARSC)
Walton College of Business (WCOB)

Does this proposal impact any courses from another College/School?

No

What are the total 20
hours needed to
complete the
program?

Program Requirements and Description

Requirements

Required Social Data Analytics Concentration Courses

SOCI 2013	General Sociology (ACTS Equivalency = SOCI 1013)	3
SOCI 3001L	Social Science Data Analytics Lab	1
SOCI 3303	Social Data and Analysis	3
SOCI 3301L	Social Data and Analysis Laboratory	1
SOCI 3313	Social Research	3
SOCI 4253	Social Impact of Data Analytics	3
Elective Social Data Analytics Concentration Courses (Select 6 hours)		6
GEOS 3013	Foundations of Geospatial Data Analysis	
GEOS 3543	Geospatial Applications and Information Science	
GEOS 3563	Geospatial Data Mining	
GEOS 4513	Introduction to GIS Programming	
GEOS 4553	Introduction to Raster GIS	
PLSC 3603	Scope and Methods of Political Science	
PLSC 4213	Campaigns and Elections	
SCWK 4073	Social Work Research and Technology I	
SOCI 4013	Special Topics in Sociology	
SOCI 4183	Social Network Analysis	

Total Hours

20

8-Semester Plan

Data Science B.S. with Social Data Analytics Concentration

Eight-Semester Program

First Year

Units

FallSpring

[MATH 2554](#) Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1) 1 4

State Minimum Core Natural Science Elective with Lab (Satisfies General Education Outcome 3.4) 4

[ENGL 1013](#) Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 3

1.1)		
SOCI 2013 General Sociology (ACTS Equivalency = SOCI 1013) (Satisfies General Education Outcomes 3.3, 4.1, and 4.2)2		
<u>DASC 1001</u> Introduction to Data Science		1
<u>DASC 1104</u> Programming Languages for Data Science		4
<u>MATH 2564</u> Calculus II (ACTS Equivalency = MATH 2505)		4
<u>ECON 2143</u> Basic Economics: Theory and Practice (Satisfies General Education Outcome 3.3)		3
<u>ENGL 1033</u> Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2)		3
<u>DASC 1204</u> Introduction to Object Oriented Programming for Data Science		4
<u>DASC 1222</u> Role of Data Science in Today's World		2
State Minimum Core Natural Science Elective with Lab (Satisfies General Education Outcome 3.4)		4
Year Total:		16 16
Second Year		Units
		FallSpring
<u>DASC 2594</u> Multivariable Math for Data Scientists		4
<u>INEG 2313</u> Applied Probability and Statistics for Engineers I4 or <u>STAT 3013</u> Introduction to Probability		3
<u>DASC 2213</u> Data Visualization and Communication		3
<u>DASC 2113</u> Principles and Techniques of Data Science		3
SOCI 3313 Social Research		3
SOCI 3001L Social Science Data Analytics Lab		1
State Minimum Core Fine Arts Elective (Satisfies General Education Outcome 3.1)2		3
<u>SEVI 2053</u> Business Foundations (Data Science Majors-only section)		3
State Minimum Core U.S. History or Government Elective (Satisfies General Education Outcome 4.2)		3
<u>INEG 2333</u> Applied Probability and Statistics for Engineers II4 or <u>STAT 3003</u> Statistical Methods		3
<u>DASC 2103</u> Data Structures & Algorithms		3
<u>DASC 2203</u> Data Management and Data Base		3
INEG 2313 Applied Probability and Statistics for Engineers I or STAT 3013 Introduction to Probability		3
<u>SOCI 2013</u> General Sociology (ACTS Equivalency = SOCI 1013) (Satisfies General Education Outcomes 3.3, 4.1, and 4.2)5		3
Year Total:		16 15
Third Year		Units
		FallSpring
<u>PHIL 3103</u> Ethics and the Professions (Satisfies General Education Outcome 5.1)		3
<u>DASC 3103</u> Cloud Computing and Big Data		3
INEG 2333 Applied Probability and Statistics for Engineers II		3

~~or STAT 3003 Statistical Methods~~

<u>SOCI 3303</u> Social Data and Analysis	3
<u>SOCI 3301L</u> Social Data and Analysis Laboratory	1
General Education Elective 2,5	1 -
State Minimum Core Natural Science Elective with Lab (Satisfies General Education Outcome 3.4)2	4
<u>SOCI 3313</u> Social Research	3
<u>DASC 3203</u> Optimization Methods in Data Science	3
<u>DASC 3213</u> Statistical Learning	3
ECON 2143 Basic Economics: Theory and Practice (Satisfies General Education Outcome 3.3)	- 3
<u>SOCI 4253</u> Social Impact of Data Analytics	3
State Minimum Core Natural Science Elective with Lab (Satisfies General Education Outcome 3.4)	- 4
<u>SOCI 3001L</u> Social Science Data Analytics Lab	1
State Minimum Core U.S. History or Government Elective (Satisfies General Education Outcome 4.2)2	3
State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.2 and 3.3)2	3
Year Total:	17 16

Fourth Year

Units
Fall/Spring

<u>DASC 4892</u> Data Science Practicum I	2
<u>DASC 4113</u> Machine Learning	3
<u>DASC 4123</u> Social Problems in Data Science and Analytics	3
Social Data Analytics Elective	3
State Minimum Core Fine Arts Elective (Satisfies General Education Outcome 3.1)3	3 -
General Elective 6	1
<u>DASC 4993</u> Data Science Practicum II (Satisfies General Education Outcome 6.1)	3
General Education Elective 2,5	- 6
State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.2 and 3.3)4	- 3
Social Data Analytics Elective	3
General Education Electives 3	6
Year Total:	12 12

Total Units in Sequence: 120

1 Students have demonstrated successful completion of the learning indicators identified for learning outcome 2.1, by meeting the prerequisites for MATH 2554.

2 Students must complete the State Minimum Core requirements as outlined in the Catalog of Studies. The courses that meet the state minimum core also fulfill many of the university's General Education requirements, although there are additional considerations to satisfy the general education learning outcomes. Students are encouraged to consult with their academic adviser when making course selections.

3 Students are required to complete 40 hours of upper-division courses (3000-4000 level). It is recommended that students consult with their adviser when making course selections.

4 Data Science Statistics and Computational Analytics Concentration students are advised to select [STAT 3013/STAT 3003](#) to meet the prerequisites required in the concentration.

5 [SOCI 2013](#) General Sociology is a required course for the Social Data Analytics Concentration. The course may also be used to meet three hours toward the State Minimum Core Social Science requirements. As such, students may complete three hours of general education electives in lieu of an additional State Minimum Core Social Science requirement for a total of 7 hours of general education electives.

Are Similar Programs available in the area?

No

Estimated Student Demand for Program See DTSCBS PLAN

Scheduled Program Review Date See DTSCBS PLAN

Program Goals and Objectives

Program Goals and Objectives

See DTSCBS PLAN

Learning Outcomes

Learning Outcomes

See DTSCBS PLAN

Description and justification of the request

Description of specific change	Justification for this change
Corrections were made to match the original Program-wide 8-semester plan.	Ensuring the Data Science Program cohorts are cohesive and managing student advising in the original Program-wide 8-semester plan.

Upload attachments

Reviewer Comments

Alice Griffin (agriffin) (01/05/22 1:08 pm): Changed General Education Electives from 3 to 6 hours and removed the Social Data Analytics Concentration Elective with input from submitter.

Gina Daugherty (gdaugher) (01/06/22 1:21 pm): Adjusted inline course references.