Date Submitted: 03/03/21 4:44 pm

Viewing: **DTSCBS-ACCA : Data Science: Accounting Analytics Concentration**

Last approved: 05/08/20 12:42 pm

Last edit: 03/10/21 3:11 pm

Changes proposed by: schubert

Catalog Pages Using
this Program
> [Data Analytics B.S. with Accounting Analytics Concentration](#)
> [Data Science (DTSC)](#)

Submitter: User ID: schubert ~~kboston~~   Phone:
    5-2264 ~~5-4622~~

Program Status   Active

Academic Level   Undergraduate

Type of proposal   Concentration

Select a reason for this modification
Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours,
changing admission/graduation requirements, adding/changing Focused Study or
Track)

Effective Catalog Year   Fall 2021

College/School Code
    College of Engineering (ENGR)

Department Code
    Department of Engineering Dean (ENGD)

Program Code   DTSCBS-ACCA

Degree   Bachelor of Science

CIP Code

In Workflow

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

Approval Path

1. 03/04/21 12:30 pm
   Norman Dennis
   (ndennis): Approved
   for ENGR Dean
   Initial
2. 03/08/21 9:46 am
   Alice Griffin
   (agriffin): Approved

for Director of
Program
Assessment and
Review

3. 03/10/21 3:04 pm
Lisa Kulczak
(lkulcza): Approved
for Registrar Initial

4. 03/10/21 3:40 pm
Gary Gunderman
(ggunderm):
Approved for
Institutional
Research

5. 03/10/21 3:58 pm
Norman Dennis
(ndennis): Approved
for ENGD Chair

6. 03/10/21 5:06 pm
Manuel Rossetti
(rossetti): Approved
for ENGR
Curriculum
Committee

7. 03/10/21 5:55 pm
Norman Dennis
(ndennis): Approved
for ENGR Faculty

8. 03/10/21 9:14 pm
Jeannie Hulen
(jhulen): Approved
for ARSC Dean

9. 03/10/21 9:21 pm
Norman Dennis
(ndennis): Approved
for ENGR Dean

10. 03/16/21 2:41 pm
Karen Boston
(kboston):

Approved for WCOB Dean

11. 03/16/21 2:42 pm Suzanne Kenner (skenner): Approved for Global Campus

12. 03/29/21 11:14 am Terry Martin (tmartin): Approved for Provost Review

13. 04/16/21 4:41 pm Alice Griffin (agriffin): Approved for University Course and Program Committee

History

1. May 7, 2020 by Lisa Kulczak (lkulcza)
2. May 8, 2020 by Charlie Alison (calison)

30.3001 - Computational Science.

Program Title

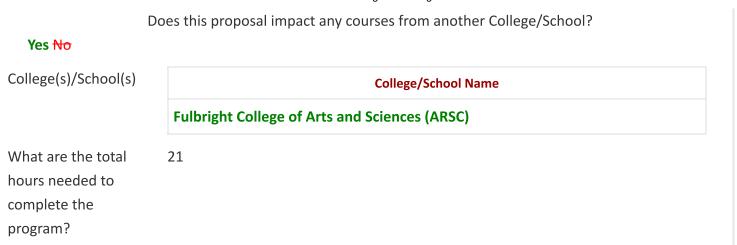Data Science: Accounting Analytics Concentration

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?

Yes ~~No~~

College(s)/School(s)	College/School Name
	Fulbright College of Arts and Sciences (ARSC)

What are the total hours needed to complete the program?	21

Program Requirements and Description

Requirements

Required Accounting Analytics Concentration Courses

ACCT 2013	Accounting Principles	3
ACCT 2023	Accounting Principles II	3
ACCT 3533	Accounting Technology	3
ACCT 3543	Accounting Analytics	3
ISYS 4193	Business Analytics and Visualization	3
ISYS 4293	Business Intelligence	3
Elective Accounting Analytics Concentration Courses (Select 3 hours)		3
FINN 3013	Financial Analysis	
ECON 3033	Microeconomic Theory	
ECON 4743	Introduction to Econometrics	
ECON 4753	Forecasting	
MKTG 3433	Introduction to Marketing	
MKTG 3633	Marketing Research	
Total Hours		21

8-Semester Plan

Data Science B.S. with Accounting Analytics Concentration

Eight-Semester Program

First Year		Units	
		Fall	Spring
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1)		1	4

Course	Units Fall	Spring
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)	3	
State Minimum Core Natural Science Elective with Lab (Satisfies General Education Outcome 3.4)	4	
DASC 1001 Introduction to Data Science	1	
DASC 1104 Programming Languages for Data Science	4	
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505)		4
DASC 1204 Introduction to Object Oriented Programming for Data Science		4
DASC 1222 Role of Data Science in Today's World		2
ACCT 2013 Accounting Principles		3
~~Choose one of the following (recommend ENGL 1033)~~	-	~~3~~
ENGL 1033 Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2)		3
~~ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023)~~		
Year Total:	16	16

Second Year	Units Fall	Spring
DASC 2594 Multivariable Math for Data Scientists	4	
~~DASC 2103 Data Structures & Algorithms~~	~~3~~	-
DASC 2113 Principles and Techniques of Data Science	3	
ACCT 2023 Accounting Principles II	3	
INEG 2313 Applied Probability and Statistics for Engineers I4 or STAT 3013 Introduction to Probability	3	
DASC 2213 Data Visualization and Communication	**3**	
DASC 2203 Data Management and Data Base		3
~~DASC 2213 Data Visualization and Communication~~	-	~~3~~
MGMT 2053 Business Foundations		3
ACCT 3533 Accounting Technology		3
INEG 2333 Applied Probability and Statistics for Engineers II4 or STAT 3003 Statistical Methods		3
DASC 2103 Data Structures & Algorithms		**3**
Year Total:	16	15

Third Year	Units Fall	Spring
PHIL 3103 Ethics and the Professions (Satisfies General Education Outcome 5.1)	3	
DASC 3103 Cloud Computing and Big Data	3	
ACCT 3543 Accounting Analytics	3	
ISYS 4193 Business Analytics and Visualization	3	
~~University Core Social Science Elective~~	~~3~~	-
State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.2 and 3.3)2	**3**	

[ISYS 4293](#) Business Intelligence		3
[DASC 3203](#) Optimization Methods in Data Science		3
[DASC 3213](#) Statistical Learning		3
[ECON 2143](#) Basic Economics: Theory and Practice (Satisfies General Education Outcome 3.3)		3
State Minimum Core Natural Science with Lab Elective (Satisfies General Education Outcome 3.4)		4
Year Total:	15	16

Fourth Year	Units	
	Fall	Spring
[DASC 4892](#) Data Science Practicum I	2	
[DASC 4113](#) Machine Learning	3	
[DASC 4123](#) Social Problems in Data Science and Analytics	3	
Accounting Analtyics Concentration Elective	3	
~~University Core Fine Arts Elective~~	~~3~~	-
State Minimum Core Fine Arts Elective (Satisfies General Education Outcome 3.1)3	**3**	
[DASC 4993](#) Data Science Practicum II (Satisfies General Education Outcome 6.1)		3
State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.3 and 4.1)4		**3**
General Education Elective5		3
State Minimum Core U.S. History or Government Elective (Satisfies General Education Outcome 4.2)		3
~~University Core History/Government Elective~~	-	~~3~~
Year Total:	14	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 **The Social Science Elective courses which satisfy General Education Outcomes 3.2 and 3.3 include: [HIST 1113](#), [HIST 1113H](#), [HIST 1123](#), [HIST 1123H](#), [HIST 2003](#), or [HIST 2013](#). Note, courses cannot be counted twice in degree requirements.**

3 **The Fine Arts Elective courses which satisfy General Education Outcome 3.1 include: [ARCH 1003](#), [ARHS 1003](#), [COMM 1003](#), [DANC 1003](#), [LARC 1003](#), [MLIT 1003](#), [MLIT 1003H](#), [MLIT 1013](#), [MLIT 1013H](#), [MLIT 1333](#), [THTR 1003](#), [THTR 1013](#), or [THTR 1013H](#).**

4 **The Social Sciences Elective courses which satisfy General Education Outcomes 3.3 and 4.1 include: [ANTH 1023](#), [COMM 1023](#), [HDFS 1403](#), [HDFS 2413](#), [HIST 1113](#), [HIST 1113H](#), [HIST 1123](#), [HIST 1123H](#), [HIST 2093](#), [HUMN 1114H](#), [HUMN 2114H](#), [INST 2013](#), [INST 2813](#), [INST 2813H](#), [PLSC 2013](#), [PLSC 2813](#), [PLSC 2813H](#), [RESM 2853](#), [SOCI 2013](#), [SOCI 2013H](#), or [SOCI 2033](#).**

5 **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.**

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
Revised formatting of the eight semester degree plan. Inserted the General Education language. Also added footnotes and hyper-linked courses for access to course details.	To provide consistency with the General Education curriculum language. Footnotes provides list of courses that specifically meets each General Education Outcome on behalf of the college. Changes to the English requirement needs campus approval.AG
Exchanged Fall <--> Spring for DASC 2103 and DASC 2213.	Moved to provide training on visualization and communication earlier in the sequence.

Upload attachments

Reviewer Comments

Alice Griffin (agriffin) (03/08/21 9:45 am): ATTENTION: Due to changes to the English requirement, this minor program change will require campus approval.

Key: 752