Date Submitted: 02/20/23 3:17 pm

Viewing: **DTSCBS-SYCA : Data Science: Supply Chain Analytics Concentration**

Last approved: 04/11/22 10:56 am

Last edit: 03/14/23 2:36 pm

Changes proposed by: schubert

Catalog Pages Using this Program	Data Science B.S. with Supply Chain Analytics
	Data Science (DTSC)

Submitter:	User ID:	schubert	Phone:	575-2264 ~~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, Degree or Program (including 15 or fewer hours, admission/graduation requirements, Focused Studies or Tracks)

Effective Catalog Year — Fall 2023

College/School Code — College of Engineering (ENGR)

Department Code — Department of Engineering Dean (ENGD)

Program Code — DTSCBS-SYCA

Degree — Bachelor of Science

CIP Code — 30.3001 - Computational Science.

Program Title — Data Science: Supply Chain Analytics Concentration

Program Delivery Method — On Campus

Yes — Is this program interdisciplinary?

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
Walton College of Business (WCOB)

What are the total hours needed to complete the program? — 120 ~~21~~

Program Requirements and Description

Requirements
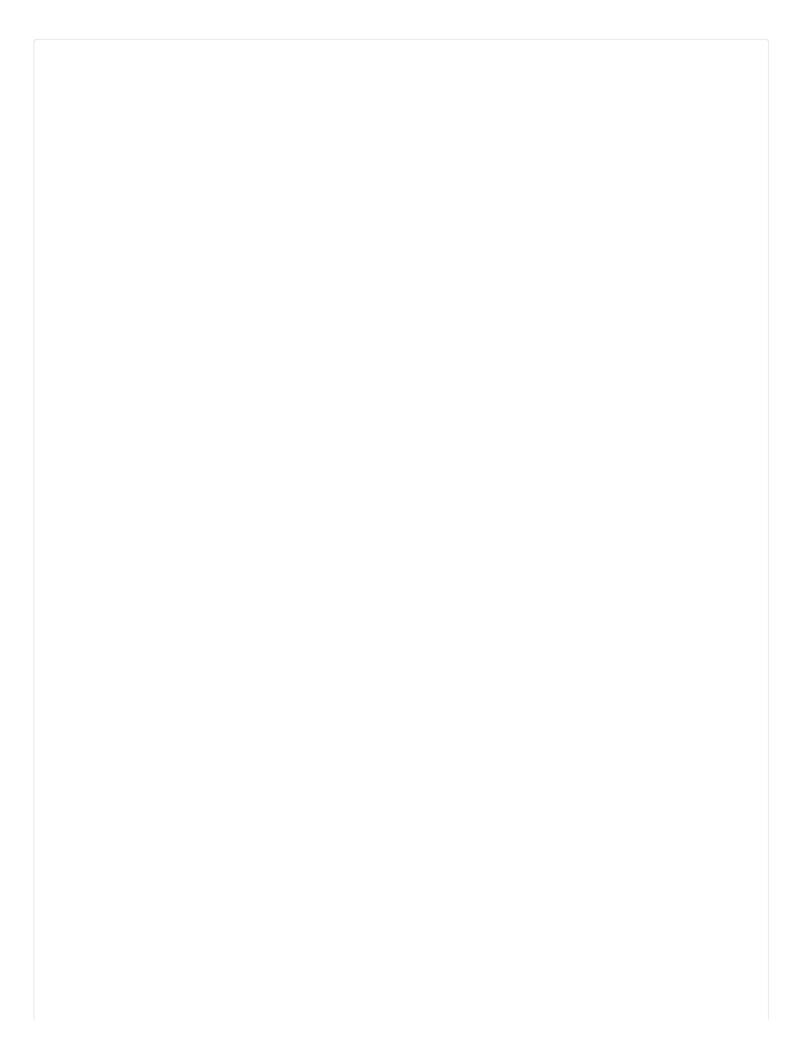
Required Supply Chain Analytics Concentration Courses

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)
4. Apr 11, 2022 by Karl Schubert (schubert)

SCMT 2103	Integrated Supply Chain Management	3
SCMT 3443	DELIVER: Transportation and Distribution Management	3
SCMT 3613	SOURCE: Procurement and Supply Management	3
SCMT 3623	PLAN: Inventory and Forecasting Analytics	3
SCMT 3663	MAKE: Supply Chain Process Improvement	3
SCMT 4653	Supply Chain Strategy and Change Management	3
Elective Supply Chain Analytics Concentration (Select 3 hours)		3
SCMT 3633	Supply Chain Service and Customer Management	
SCMT 3653	Project Management: Supply Chain New Product Planning and Launch	
SCMT 4123	Environmental, Social and Governance Strategies and Operations in Supply Chains	
SCMT 4103	Special Topics in Supply Chain Management	
SCMT 3643	International Logistics	
SCMT 4633	Supply Chain Performance Management and Analytics	
Any Industrial Engineering (INEG) course at the 3000 level from the Operations Analytics Concentration		
Total Hours		21

Data Science B.S. with Supply Chain 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	
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 1.1)	3	
DASC 1001 Introduction to Data Science	1	-
DASC 1003 INTRODUCTION TO DATA SCIENCE Course DASC 1003 INTRODUCTION TO DATA SCIENCE Not Found	3	.
DASC 1104 Programming Languages for Data Science	4	
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505)		4
ECON 2143 Basic Economics: Theory and Practice (Satisfies General Education Outcome 3.3)		3
ENGL 1033 Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2)		3
DASC 1204 Introduction to Object Oriented Programming for Data Science		4
DASC 1222 Role of Data Science in Today's World	-	2
DASC 1223 ROLE OF DATA SCIENCE IN TODAY'S WORLD Course DASC 1223 ROLE OF DATA SCIENCE IN TODAY'S WORLD Not Found	.	3
Year Total:	14	17

Second Year	Units	
	Fall	Spring
DASC 2594 Multivariable Math for Data Scientists	4	
STAT 3013 Introduction to Probability[4]	3	
or INEG 2323 Probability and Stochastic Processes for Industrial Engineers		
DASC 2213 Data Visualization and Communication	3	
DASC 2113 Principles and Techniques of Data Science	3	
State Minimum Core U.S. History or Government Elective (Satisfies General Education Outcome 4.2)[2]	3	
SEVI 2053 Business Foundations (Data Science Majors-only section)		3
STAT 3003 Statistical Methods[4]		3-4
or INEG 2314 Statistics for Industrial Engineers I		
DASC 2103 Data Structures & Algorithms	-	3
State Minimum Core Natural Science Elective with Lab (Satisfies General Education Outcome 3.4)[2]	.	4
DASC 2203 Data Management and Data Base		3
ACCT 2013 Accounting Principles (This pre-req to SYDA Concentration courses uses the "General Elective" to allow a full 21 hours for Concentration courses)		3
Year Total:	16	16

Third Year	Units	
	Fall	Spring
PHIL 3103 Ethics and the Professions (Satisfies General Education Outcome 5.1)	3	-
DASC 2133 DATA PRIVACY_ETHICS Course DASC 2133 DATA PRIVACY & ETHICS Not Found (Satisfies General Education Outcome 5.1)	3	.
DASC 3103 Cloud Computing and Big Data	3	
State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.2 and 3.3)[2]	3	
State Minimum Core Natural Science Elective with Lab (Satisfies General Education Outcome 3.4)[2]	4	
SCMT 2103 Integrated Supply Chain Management	3	
DASC 3203 Optimization Methods in Data Science		3
DASC 3213 Statistical Learning		3
SCMT 3443 DELIVER: Transportation and Distribution Management		3
State Minimum Core Fine Arts Elective (Satisfies General Education Outcome 3.1)[2]		3
State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.3 and 4.1)[2]		3
Year Total:	16	15

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	
SCMT 3613 SOURCE: Procurement and Supply Management	3	
SCMT 3623 PLAN: Inventory and Forecasting Analytics	3	
DASC 4993 Data Science Practicum II (Satisfies General Education Outcome 6.1)		3
SCMT 3643 International Logistics	-	3
SCMT 3663 MAKE: Supply Chain Process Improvement	.	3
SCMT 4653 Supply Chain Strategy and Change Management		3
Supply Chain Analytics Concentration Elective[3]		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]
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.

	No		Are Similar Programs available in the area?

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**
DASC 1001 & DASC 1222 are updated to DASC 1003 and DASC 1223 as initially designed. DASC 2103 is moved to CMPA Concentration Required matching the original program design. INEG 2314 then INEG 2323 sequence is changed to better match sequencing of STAT 3013 and 3003 per discussions with INEG. SCMT 3643 and SCMT 3663 were swapped from/to "required"/"elective".	These provide the courses with the appropriate number of hours and improved course sequencing and to match changes made in the Supply Chain B.S. degree course sequence.

Upload attachments   <u>UoA BS DASC Suggested Plan of Study (8-semester) v23-8a.pdf</u>

Reviewer Comments   **Alice Griffin (agriffin) (02/20/23 2:49 pm):** Reformatted course listing for DASC 1003 and DASC 1223, removed notation regarding First-Year Science Program. Removed comment field and entered course title in the add course field. Also, reformatted DASC 2133, placing course title in the add course field for consistency with campus formatting.
Alice Griffin (agriffin) (02/20/23 2:51 pm): Rollback: Please change response to does this proposal impact another college to yes. WCOB courses have been impacted. As such, this request will require campus approval.
Alice Griffin (agriffin) (02/21/23 9:33 am): Changed reason for modification from request that qualifies for the shortened approval process to making minor changes. The addition of the SCMT course to the concentration will require campus approval due to the proposal impacting courses from another college.
Alice Griffin (agriffin) (03/14/23 2:36 pm): Changed total hours field from 21 to 120 as requested by the Registrar's Office in order to reflect total hours for the degree program.

Key: 751