

# Program Change Request

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

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

Last approved: 05/18/21 6:54 pm

Last edit: 02/01/22 2:44 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: 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-SYCA

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 1:25 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. 02/01/22 6:23 pm  
Alan Ellstrand  
(aellstra): Approved  
for WCOB Dean

- 11. 02/02/22 1:16 pm  
Suzanne Kenner  
(skenner): Approved  
for Global Campus
- 12. 02/02/22 1:52 pm  
Ketevan  
Mamiseishvili  
(kmamisei):  
Approved for  
Provost Review
- 13. 02/28/22 4:53 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)
- 3. May 18, 2021 by  
Karl Schubert  
(schubert)

30.3001 - Computational Science.

Program Title

Data Science: Supply Chain Analytics Concentration

Program Delivery

Method

On Campus

Is this program interdisciplinary?

Yes

College(s)/School(s)

<b>College/School Name</b>
College of Engineering (ENGR)

**College/School Name**

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 hours needed to complete the program?

21

## Program Requirements and Description

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Requirements

### Required Supply Chain Analytics Concentration Courses

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<a href="#">SCMT 2103</a>	Integrated Supply Chain Management	3
<a href="#">SCMT 3443</a>	DELIVER: Transportation and Distribution Management	3
<a href="#">SCMT 3613</a>	SOURCE: Procurement and Supply Management	3
<a href="#">SCMT 3623</a>	PLAN: Inventory and Forecasting Analytics	3
<a href="#">SCMT 3643</a>	International Logistics	3
<a href="#">SCMT 4653</a>	Supply Chain Strategy and Change Management	3
Elective Supply Chain Analytics Concentration (Select 3 hours)		3
<a href="#">SCMT 3633</a>	Supply Chain Service and Customer Management	
<a href="#">SCMT 3653</a>	Project Management: Supply Chain New Product Planning and Launch	
<a href="#">SCMT 4123</a>	Environmental, Social and Governance Strategies and Operations in Supply Chains	
<a href="#">SCMT 4103</a>	Special Topics in Supply Chain Management	
<a href="#">SCMT 4633</a>	Supply Chain Performance Management and Analytics	

Any Industrial Engineering (INEG) course at the 3000 level from the Operations Analytics Concentration

Total Hours

21

8-Semester Plan

## Data Science B.S. with Supply Chain Analytics Concentration

### Eight-Semester Program

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First Year

Units

Fall/Spring

<u>MATH 2554</u> Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1)	1	4
<b>State Minimum Core Natural Science Elective with Lab (Satisfies General Education Outcome 3.4)</b>	<b>4</b>	
<u>ENGL 1013</u> Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)		3
<u>DASC 1001</u> Introduction to Data Science		1
<u>DASC 1104</u> Programming Languages for Data Science		4
<del>ECON 2143 Basic Economics: Theory and Practice (Satisfies General Education Outcome 3.3)</del>	<del>3</del>	-
<u>MATH 2564</u> Calculus II (ACTS Equivalency = MATH 2505)		4
<b>ECON 2143 Basic Economics: Theory and Practice (Satisfies General Education Outcome 3.3)</b>	<b>3</b>	
<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
<del>ACCT 2013 Accounting Principles To be completed as a General Education Elective for prerequisite purposes</del>	-	3
Year Total:		16 16
Second Year		Units
		FallSpring
<u>DASC 2594</u> Multivariable Math for Data Scientists		4
<b>INEG 2313 Course INEG 2313 Not Found</b>	<b>4</b>	<b>3</b>
<b>or STAT 3013 Introduction to Probability</b>		
<u>DASC 2213</u> Data Visualization and Communication		3
<u>DASC 2113</u> Principles and Techniques of Data Science		3
<del>SCMT 2103 Integrated Supply Chain Management</del>	<del>3</del>	-
<del>State Minimum Core U.S. History or Government Elective (Satisfies General Education Outcome 4.2)</del>	<del>3</del>	-
<b>State Minimum Core Fine Arts Elective (Satisfies General Education Outcome 3.1)</b>	<b>2</b>	<b>3</b>
<u>SEVI 2053</u> Business Foundations (Data Science Majors-only section)		3
<del>SCMT 3443 DELIVER: Transportation and Distribution Management</del>	-	3
<b>INEG 2333 Applied Probability and Statistics for Engineers II</b>	<b>4</b>	<b>3</b>
<b>or STAT 3003 Statistical Methods</b>		
<u>DASC 2103</u> Data Structures & Algorithms		3
<u>DASC 2203</u> Data Management and Data Base		3
<b>INEG 2313 Course INEG 2313 Not Found</b>	-	3
<del>or STAT 3013 Introduction to Probability</del>		
<b>ACCT 2013 Accounting Principles (This pre-req to SYDA Concentration courses uses the "General Elective" to allow a full 21 hours for Concentration courses)</b>		<b>3</b>
Year Total:		16 15
Third Year		Units
		FallSpring

<b>PHIL 3103</b> Ethics and the Professions (Satisfies General Education Outcome 5.1)	3	
<b>DASC 3103</b> Cloud Computing and Big Data	3	
<del>INEG 2333 Applied Probability and Statistics for Engineers-II</del>	3	-
<del>or STAT 3003 Statistical Methods</del>		
<del>SCMT 3613 SOURCE: Procurement and Supply Management</del>	3	-
<del>SCMT 3623 PLAN: Inventory and Forecasting Analytics</del>	3	-
<b>SCMT 2103 Integrated Supply Chain Management</b>	3	
<b>State Minimum Core Natural Science Elective with Lab (Satisfies General Education Outcome 3.4)</b>	4	
<b>State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.2 and 3.3)2</b>	3	
<b>DASC 3203</b> Optimization Methods in Data Science		3
<b>DASC 3213</b> Statistical Learning		3
<del>SCMT 3643 International Logistics</del>	-	3
<del>SCMT 4653 Supply Chain Strategy and Change Management</del>	-	3
<del>State Minimum Core Natural Science with Lab Elective (Satisfies General Education Outcome 3.4)</del>	-	4
<b>SCMT 3443 DELIVER: Transportation and Distribution Management</b>	3	
<b>State Minimum Core U.S. History or Government Elective (Satisfies General Education Outcome 4.2)2</b>	3	
<b>State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.3 and 4.1)2</b>	3	
Year Total:	16	15
Fourth Year		Units
		FallSpring
<b>DASC 4892</b> Data Science Practicum I	2	
<b>DASC 4113</b> Machine Learning	3	
<b>DASC 4123</b> Social Problems in Data Science and Analytics	3	
<del>Supply Chain Analytics Elective</del>	3	-
<del>State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.2 and 3.3)2</del>	3	-
<b>SCMT 3613 SOURCE: Procurement and Supply Management</b>	3	
<b>SCMT 3623 PLAN: Inventory and Forecasting Analytics</b>	3	
<b>DASC 4993</b> Data Science Practicum II (Satisfies General Education Outcome 6.1)		3
<del>State Minimum Core Natural Science with Lab Elective (Satisfies General Education Outcome 3.4)</del>	-	4
<b>SCMT 3643 International Logistics</b>	3	
<b>SCMT 4653 Supply Chain Strategy and Change Management</b>	3	
Supply Chain Analytics Concentration Elective3		3
<del>State Minimum Core Fine Arts Elective (Satisfies General Education Outcome 3.1)4</del>	-	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

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.

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

<b>Description of specific change</b>	<b>Justification for this change</b>
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 1:02 pm):** Changed the General Elective in the spring of the fourth year to Supply Chain Analytics Concentration Elective in consultation with submitter.

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