

Date Submitted: 03/03/21 4:57 pm

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

Last approved: 05/08/20 12:53 pm

Last edit: 03/10/21 3:10 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 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-SYCA

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. 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. Provost's Office-- Notification of Approval
17. Registrar Final
18. Catalog Editor Final

### Approval Path

1. 03/04/21 12:28 pm  
Norman Dennis (ndennis): Approved for ENGR Dean Initial
2. 03/08/21 9:53 am  
Alice Griffin (agriffin): Approved

- for Director of  
Program  
Assessment and  
Review
3. 03/10/21 3:10 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 5:54 pm  
Norman Dennis  
(ndennis): Approved  
for ENGR Faculty
  8. 03/10/21 5:56 pm  
Norman Dennis  
(ndennis): Approved  
for ENGR Dean
  9. 03/10/21 9:14 pm  
Jeannie Hulen  
(jhulen): Approved  
for ARSC Dean
  10. 03/16/21 2:44 pm  
Karen Boston  
(kboston):

Approved for WCOB  
Dean

- 11. 03/16/21 2:45 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: Supply Chain 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 hours needed to complete the program? 21

## Program Requirements and Description

Requirements

### Required Supply Chain Analytics Concentration Courses

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

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

Total Hours 21

8-Semester Plan

## Data Science B.S. with Supply Chain Analytics Concentration Eight-Semester Program

| First Year  | Units      |
|---|------------|
|   | FallSpring |
| <a href="#"><u>MATH 2554</u></a> Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1)    | 4          |
| <a href="#"><u>ENGL 1013</u></a> Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1) | 3          |
| <a href="#"><u>DASC 1001</u></a> Introduction to Data Science   | 1          |

|   |  |             |
|---|--|-------------|
| <del>DASC 1001</del> Introduction to Data Science   |  | 1           |
| DASC 1104 Programming Languages for Data Science  |  | 4           |
| ECON 2143 Basic Economics: Theory and Practice (Satisfies General Education Outcome 3.3)                    |  | 3           |
| 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 To be completed as a General Education Elective for prerequisite purposes   |  | 3           |
| <del>Choose one of the following (recommend ENGL1033)</del>   |  | - 3         |
| ENGL 1033 Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2) |  | 3           |
| <del>ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023)</del>  |  |             |
| Year Total:   |  | 15 16       |
| Second Year   |  | Units       |
|   |  | Fall Spring |
| DASC 2594 Multivariable Math for Data Scientists  |  | 4           |
| <del>DASC 2103 Data Structures &amp; Algorithms</del>   |  | 3 -         |
| DASC 2113 Principles and Techniques of Data Science   |  | 3           |
| SCMT 2103 Integrated Supply Chain Management  |  | 3           |
| State Minimum Core U.S. History or Government Elective (Satisfies General Education Outcome 4.2)            |  | 3           |
| <b>DASC 2213 Data Visualization and Communication</b>   |  | <b>3</b>    |
| DASC 2203 Data Management and Data Base   |  | 3           |
| <del>DASC 2213 Data Visualization and Communication</del>   |  | - 3         |
| INEG 2313 Applied Probability and Statistics for Engineers I or STAT 3013 Introduction to Probability       |  | 3           |
| <b>DASC 2103 Data Structures &amp; Algorithms</b>   |  | <b>3</b>    |
| MGMT 2053 Business Foundations  |  | 3           |
| SCMT 3443 DELIVER: Transportation and Distribution Management   |  | 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           |
| INEG 2333 Applied Probability and Statistics for Engineers II or STAT 3003 Statistical Methods              |  | 3           |
| SCMT 3613 SOURCE: Procurement and Supply Management   |  | 3           |
| SCMT 3623 PLAN: Inventory and Forecasting Analytics   |  | 3           |
| DASC 3203 Optimization Methods in Data Science  |  | 3           |
| <del>DASC 3313 Statistical Learning</del>   |  | -           |

|  |       |
|--|-------|
| <del>DASC 3213</del> Statistical Learning  | 5     |
| <del>SCMT 3643</del> International Logistics   | 3     |
| <del>SCMT 4653</del> Supply Chain Strategy and Change Management                               | 3     |
| State Minimum Core Natural Science with Lab Elective (Satisfies General Education Outcome 3.4) | 4     |
| Year Total:  | 15 16 |

| Fourth Year  | Units          |
|--|----------------|
|  | FallSpring     |
| <del>DASC 4892</del> Data Science Practicum I  | 2              |
| <del>DASC 4113</del> Machine Learning  | 3              |
| <del>DASC 4123</del> Social Problems in Data Science and Analytics                                     | 3              |
| Supply Chain Analytics Elective  | 3              |
| <del>University Core Social Science</del>  | <del>3</del> - |
| <b>State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.2 and 3.3)2</b> | <b>3</b>       |
| <del>DASC 4993</del> Data Science Practicum II (Satisfies General Education Outcome 6.1)               | 3              |
| State Minimum Core Natural Science with Lab Elective (Satisfies General Education Outcome 3.4)         | 4              |
| <del>University Core Social Science Elective</del>   | - <del>3</del> |
| <del>University Core Fine Arts Elective</del>  | - <del>3</del> |
| <b>State Minimum Core Social Sciences Elective (Satisfies General Education Outcomes 3.3 and 4.1)3</b> | <b>3</b>       |
| <b>State Minimum Core Fine Arts Elective (Satisfies General Education Outcome 3.1)4</b>                | <b>3</b>       |
| Year Total:  | 14 13          |

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 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.

**4**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.

Are Similar Programs available in the area?

No

Estimated Student Demand for Program See DTSCBS PLAN

Demand for Program

Scheduled Program      See DTSCBS PLAN

Review Date

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>   |
|--|--|
| Revised formatting of the eight semester degree plan.<br>Inserted the General Education language.<br>Also added footnotes and hyper-linked courses for access to course details. | To provide consistency with the General Education curriculum language.<br>Footnotes provides list of courses that specifically meets each General Education Outcome on behalf of the college.<br><br>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 9:53 am):** ATTENTION: Due to changes to the English requirement, this minor program change will require campus approval.