

The Nuts and Bolts of Creating a Two-Year Data Science Program



Program Design

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A.S in Data Science Technology (2019)

Mission/Purpose

The mission of the Data Science Technology Associate in Science program is to prepare students to enter or advance in the field of data science by combining traditional college education with hands-on training in areas of data acquisition, processing and transformation techniques applied to modeling, analysis and visualization.

The Program

The Data Science Technology program prepares students for a respected career as a data science technician. The field of data science involves the most cutting-edge sectors within information technology. Data science extends to multiple areas, including artificial intelligence, biotechnology, computer engineering, computer science, information technology, robotics and telecommunications.

The program curriculum includes activities that focus on the acquisition of data in both structured and unstructured formats, cleaning, modeling and analysis of acquired data, and the extraction of knowledge or insights using statistical processes and systems. Students also study the identification of data sources, retrieval issues and methodologies, data security and the use of informational tools.

Embedded Certificates

- Original (local only)

Embedded Certificate(s)

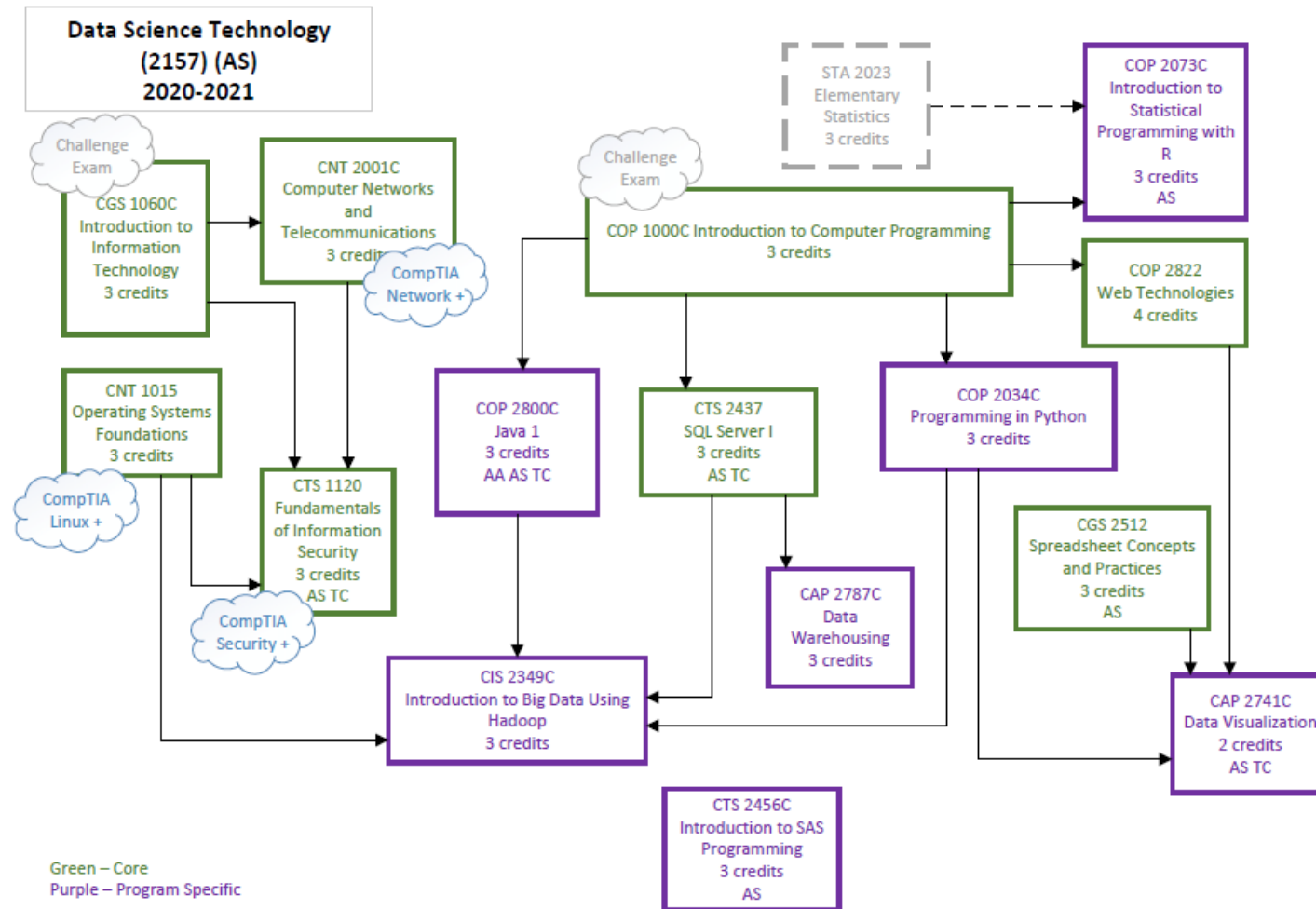
Two technical certificates are available within this degree program: [Data Science Technician I \(6985\)\(T.C.\)](#) and [Data Science Technician II \(6987\)\(T.C.\)](#). Students may pursue the A.S. degree and earn technical certificates while completing the requirements for the degree, or pursue one or more certificates to develop or upgrade their skills in a particular field. Contact an advisor to determine the career education path that is best for you.

- State-Approved
 - Data Science Technician (combined DSTI and DSTII)
(<https://www.fldoe.org/core/fileparse.php/20062/urlt/0530700100-2223.rtf>)
 - FinTech Technician
<https://www.fldoe.org/core/fileparse.php/20062/urlt/0530710400-2223.rtf>)

A.S. Data Science Technology Curriculum

- CAP 2741C - Data Visualization
- CAP 2787C - Data Warehousing
- CGS 1060C - Introduction to Information Technology
- CGS 2512C - Spreadsheet Concepts and Practices
- CIS 2349C - Introduction to Big Data Using Hadoop
- CNT 1015 - Operating Systems Foundations
- CNT 2001C - Computer Networks and Telecommunications
- COP 1000C - Introduction to Computer Programming
- COP 2034C - Programming in Python
- COP 2073C - Introduction to Statistical Programming with R
- COP 2800C - Java 1
- COP 2822C - Web Technologies
- CTS 1120C - Fundamentals of Information Security
- CTS 2437C - SQL Server I - Fundamentals
- CTS 2456C - Introduction to SAS Programming

Course Sequence Flowchart











Industry Certifications - CompTIA (www.comptia.org)


Recommended Course Sequence

Term I	ENC 1101 English Composition MAC 1105 College Algebra (or MGF1106 or MGF1107) CGS 1060C Introduction to Information Technology CNT 1015 Operating Systems Foundations
Term II	Humanities (Refer to General Education Requirements) COP 1000C Introduction to Computer Programming CNT 2001C Computer Networks and Telecommunications STA 2023 Elementary Statistics
Term III	CTS 1120C Fundamentals of Information Security CTS 2437C Introduction to SQL CGS 2512 Spreadsheet Concepts and Practices COP2800C Java 1
Term IV	Social Science (Refer to General Education Requirements) COP2034C Programming in Python COP2822C Web Technologies CAP2787C Data Warehousing
Term V	COP2073C Introduction to Statistical Programming with R CIS2349C Big Data with Hadoop CTS2456C Introduction to SAS CAP2741C Data Visualization

Free Textbooks for Most Courses







R for Data Science

★★★★★ 7 REVIEWS


by Garrett Golemund, Hadley Wickham

Publisher: O'Reilly Media, Inc.

Release Date: December 2016

ISBN: 9781491910399

Topic: R




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Book Description

Learn how to use R to turn raw data into insight, knowledge, and understanding. This book introduces you to R, RStudio, and the tidyverse, a collection of R packages designed to work together to make data science fast, fluent, and fun. Suitable for readers with no previous programming experience, R for Data Science is designed to get you doing data science as quickly as possible.



Industry Certification Exam Preparation

- Students will be prepared through their coursework to take exams which provide the following certifications:
 - CompTIA Network+ (CNT2001C)
 - CompTIA Security+ (CTS1120C)
 - Oracle Java OCA SE8 (COP2800C)
 - SAS Base Programming (CTS2450C)
 - Certified Associate in Python Programming (PCAP) (COP2034C)
 - Microsoft Office Specialist / Excel (CGS2512)
 - Tableau Desktop Specialist (CAP2741C)
- Exam Voucher - Grant Funds Available

Useful Links

- Associate's Degree State Framework (Approved by Florida State DOE)
 - <http://www.fldoe.org/core/fileparse.php/18703/urlt/1511010100-1920.rtf>
- Florida State College at Jacksonville (FSCJ) Program Page
 - <https://www.fscj.edu/academics/areas-of-study/stem/2157>
- Grant Summary page
 - <https://www.fscj.edu/academics/workforce-education/grant-programs/datatec>



This material is based upon work supported by the National Science Foundation under Grant No. 1902524.