

Suggested Curriculum Guide for BS Computer Science, Artificial Intelligence in Data Science Concentration

Freshman (1st Semester) 17 hrs

GSD 101
CSC 185- Intro to Computer Concepts
CSC 190- Object-Oriented Programming I
STA 270- Applied Statistics
⁶MAT 234 (*fulfills Gen. Ed. 2*)-Calculus I

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3
4
4

Freshman (2nd Semester) 16 hrs

CSC 191- Object-Oriented Programming II
CSC 195- Intro to Discrete Structures
MAT 244- Calculus II
Gen. Ed. 1A (*ENG 102*)
Gen. Ed. Course

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Sophomore (1st Semester) 15 hrs

CSC 310- Data Structure
CSC 313- Database Systems
STA 340- Applied Regression Analysis
STA 375- Sampling Methods
Gen Ed. 1B (*ENG 102*)

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Sophomore (2nd Semester) 13 hrs

CSC 340- Ethics & Software Engineering
CSC 499- Computer Science Career Preparation
STA 380- Nonparametric Statistics
Gen. Ed. Course
Gen. Ed. Course

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3

Junior (1st Semester) 15 hrs

CSC 308- Mobile App Dev for iOS
CSC 311- Algorithms I
CSC 546- Artificial Intelligence
Gen. Ed. Course
Gen. Ed. Course

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3

Junior (2nd Semester) 15 hrs

CSC 320- Intro to Algorithms
CSC 581- Machine Learning
Gen. Ed Course
Gen. Ed. Course
Free Elective

3
3
3
3
3

Senior (1st Semester) 13-14 hrs

CSC 494, 495, *or* 496- Innovative Problem Solving, Independent Work (recommended), or Senior Seminar
CSC 582- Big Data
STA 575- Statistics Methods and using SAS
Supporting Course Sequence (*Class 1*)
Elective

1
3
3
3-4
3

Senior (2nd Semester) 15 hrs

CSC 545- Theory of Database Systems
CSC 583- Data Visualization
STA 580- R and Introductory Data Mining
STA 585- Experimental Design
Supporting Course Sequence (*Class 2*)

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⁶ Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.

UNIVERSITY GRADUATION REQUIREMENTS

Total hours University Graduation Requirements

33 hours

MAJOR REQUIREMENTS

Core Courses

CSC 185, CSC 190, CSC 191, CSC 195, CSC 308, CSC 310, CSC 313, CSC 338, CSC 340, CSC 499

28 hours

Concentration Requirements

CSC 311, CSC 320, CSC 545, CSC 546, CSC 581, CSC 582, CSC 583
PLUS ONE (1) HOUR selected from the following: CSC 494, CSC 495, CSC 496

22 hours

Supporting Course Requirements

⁶*MAT 234, MAT 244, STA 270, *STA 340, *STA 375, *STA 380, *STA 575, *STA 580, *STA 585

.. 33-34 hours

Plus ONE (1) sequence selected from the following:

AEM 202 and *AEM 332 or *AEM 336 or *AEM 506

OR

BIO 315 and *BIO 533

OR

ECO 230 and ECO 231

OR

RMI 370 and *RMI 372 or *RMI 374 or RMI 378

OR

*STA 520 and *STA 521

OR

CSC 332 and *CSC 542 or *CSC 547 or *CSC 548

OR

*GEO 353 and *GEO 453

OR

Two courses from: HLS 401 or HLS 402 or HLS 403

Free Electives

3-6 hours

Total Curriculum Requirements

120 hours