

**ARKANSAS STATE UNIVERSITY
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE**

NAME: _____
STUDENT ID: _____

SEMESTER GRADE

CORE REQUIREMENTS: 9-21 hours

Compilers or Automata Theory (one of next two)

CS 5133: Compilers _____
CS 5723: Automata Theory _____

Computer Systems (one of next four)

CS 5313: Computer Networks _____
CS 6213: Parallel Processing _____
CS 6243: Distributed Systems _____
CS 6253: Heterogeneous Computing _____

Algorithms (one of next one)

CS 5713: Analysis of Algorithms _____

EMPHASIS IN DATA SCIENCE (12 hours)

Required courses: three of next four, and total four of next six

CS 5543: Database Systems _____
CS 5623: Fundamentals of Data Science _____
CS 6443: Machine Learning _____
CS 6523: Data Mining Techniques _____

Elective courses:

CS 6543: Advanced Database Systems _____
selected STAT classes (see next page)* _____

ELECTIVES : 6-24 hours (Total 33 hrs including core courses)

CS 5113: Software Engineering _____
CS 5223: UNIX Systems Programming _____
CS 5413: Fundamental Computer Graphics _____
CS 5423: Interactive Computer Graphics _____
CS 5433: Artificial Intelligence _____
CS 5613: Mobile Application Development _____
CS 5823: Scripting Languages _____
CS 583V: Internship (not counted towards degree) _____
CS 6123: Software Security _____
CS 6223: Advanced Computer Architecture _____
CS 6233: Operating System Design _____
CS 6263: Cloud Computing _____
CS 6313: Data Security _____
CS 6323: Computer Security _____
CS 6333: Network and Internet Security _____
CS 6343: Cloud Security _____
CS 6353: Hardware Security _____
CS 6413: Solid Modeling _____
CS 6423: Robotic Software Control _____
CS 6463: Image Processing _____
CS 6613: Bioinformatics _____
CS 6713: Advanced Analysis of Algorithms _____
CS 6723: Computability Theory _____
CS 6813: Seminar in Computer Science _____
CS 688V: Independent Study _____
CS 689V: Thesis _____
Other CS/Math/STAT classes* _____

Note:

A minimum of thirty-three hours are required for this degree, eighteen of which must be 6000 level coursework.

* Selections may include up to 6 hrs. MATH/STAT, w/ prior approval.

DEGREE AND MAJOR: M. S., COMPUTER SCIENCE
EMPHASIS: Data Science

CATALOG YEAR: 2020 - 2021
revised: 06/17/20

UNDERGRADUATE DEFICIENCIES

Required deficiencies bring M. S. candidate to level of B. S. degree graduate.

No 6000-level courses for credit until all deficiencies circled below have been completed.

Computer Science:

three of next three
CS 2114: Structured Programming _____
CS 2124: OOP & Fund Data Structures _____
CS 3113: Algorithms & Adv Data Structures _____
or three of next three
CS 5012: Acc Structured Programming _____
CS 5022: Acc OOP & Fund Data Structures _____
CS 5032: Acc Algorithms & Adv Data Struct _____
and
CS 3223: Computer Organization _____
CS 3233: Operating Systems _____

Mathematics and Statistics:

MATH 2183: Discrete Structures _____
MATH 2204: Calculus I _____
MATH 2214: Calculus II _____
STAT 3233: Applied Statistics I _____

GRADUATION CHECK LIST

Undergraduate deficiencies _____
18 hours of 6000 level coursework _____
33 hours for degree _____
3.00 average overall _____
3.00 average in major _____
Comprehensive exam _____
Emphasis in Data Science _____

Current Enrollment:

1 _____
2 _____
3 _____
4 _____

The above named student has met all requirements for graduation providing he/she satisfactorily completes the courses of current enrollment.

Advisor _____ Date _____

Chair of Computer Science _____ Date _____

Dean of College of Engineering & Computer Science _____ Date _____

Selected STAT Class for emphasis:

STAT 6433: Time Series Analysis	_____	_____
STAT 6643: Multivariate Analysis	_____	_____
STAT 6653: Data Analysis I: Regress. Analy.	_____	_____
STAT 6663: Data Analysis II: Analy. of Var.	_____	_____
_____	_____	_____
_____	_____	_____