ARKANSAS STATE UNIVERSITY
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

DEGREE AND MAJOR: **M. S., COMPUTER SCIENCE**
EMPHASIS: **High Performance Computing**

NAME: _____
STUDENT ID: _____

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

	SEMESTER	GRADE
CORE REQUIREMENTS: 6-9 hours		
Compilers or Automata Theory (one of next two)		
CS 5133: Compilers		
CS 5723: Automata Theory		
Algorithms (one of next one)		
CS 5713: Analysis of Algorithms		
Computer Systems (one of the first three of emphasis required courses)		
EMPHASIS IN HIGH PERFORMANCE COMPUTING (12 hours)		
Required courses: three of next four, and total four of next seven		
CS 6213: Parallel Processing		
CS 6243: Heterogeneous Computing		
CS 6253: Distributed Systems		
CS 6263: Cloud Computing		
Elective courses in emphasis:		
CS 5223: Unix Systems Programming		
CS 6223: Advanced Computer Architecture		
CS 6233: Operating System Design		
ELECTIVES : 12-15 hours (Total 33 hrs including core/emphasis courses)		
CS 5113: Software Engineering		
CS 5313: Computer Networks		
CS 5413: Fundamental Computer Graphics		
CS 5423: Interactive Computer Graphics		
CS 5433: Artificial Intelligence		
CS 5543: Database Systems		
CS 5613: Mobile Application Development		
CS 5623: Fundamentals of Data Science		
CS 5823: Scripting Languages		
CS 583V: Internship (not counted towards degree)		
CS 6123: Software Security		
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 6443: Machine Learning		
CS 6463: Image Processing		
CS 6523: Data Mining Techniques		
CS 6543: Adv. Database Systems		
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		
_____		
_____		

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	HPC	

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

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.