| DN: Printed Name:  |             |   |            |                     |
|--|-------------|---|------------|---------------------|
| BS-Infor   | mation Tech | nology-Major  | Code: 1044 |                     |
| Concentration Codes: C033 Programming C03  |             |   |            | C051 Data Analytics |
| This degree is available in a guaranteed 8-semester plan fo<br>The prerequisites a |             | n. <b>See your advisor to c</b><br>ne degree requirements |            | • • •               |
| FRESHMAN YEAR- FALL SEMESTER: 16 hours   |             |   |            |                     |
| Courses  |             |   |            |                     |
| English composition requirement  | 3 Hours     | Note 1  | Grade      |                     |
| MATH 2804 Calculus I   | 4 Hours     |   | Grade      |                     |
| CS 1044 Foundations of Networking  | 4 Hours     | Note 2  | Grade      |                     |
| CS 1014 Foundations of Programming I   | 4 Hours     | Note 2  | Grade      |                     |
| STEM 1001 College Prep for STEM Majors   | 1 Hour      |   | Grade      |                     |
| FRESHMAN YEAR- SPRING SEMESTER: 15 hours   |             |   |            |                     |
| Courses  |             |   |            |                     |
| CS 1024 Foundations of Programming II  | 4 Hours     | Note 2  | Grade      |                     |
| CS 1033 Foundations of Operating Systems I   | 3 Hours     | Note 2  | Grade      |                     |
| CS 2022 IT Systems Management  | 2 Hours     | Note 2  | Grade      |                     |
| SPCH 1203 Intro to Speech Communication  | 3 Hours     |   | Grade      |                     |
| English composition requirement  | 3 Hours     | Note 1  | Grade      |                     |
| SOPHOMORE YEAR- FALL SEMESTER: 16 hours  |             |   |            |                     |
| Courses  |             |   |            |                     |
| CS 1063 Foundations of Operating Systems II  | 3 Hours     | Note 2  | Grade      |                     |
| CS 2003 Data Structures  | 3 Hours     | Note 2  | Grade      |                     |
| CS 2013 Database Systems I   | 3 Hours     | Note 2  | Grade      |                     |
| MATH 1903 Introductory Discrete Math   | 3 Hours     |   | Grade      |                     |
| Lab Science requirement  | 4 Hours     | Note 1  | Grade      |                     |
| SOPHOMORE YEAR- SPRING SEMESTER: 16 hours  |             |   |            |                     |
| Courses  |             |   |            |                     |
| CS 2033 Web Systems  | 3 Hours     | Note 2  | Grade      |                     |
| CS 2043 Database Systems II  | 3 Hours     | Note 2  | Grade      |                     |
| STAT 2503 Probability and Statistics I or  |             |   |            |                     |
| MATH 2854 Calculus II  | 3 Hours     | Note 5  | Grade      |                     |
| Lab Science requirement  | 4 Hours     | Note 1  | Grade      |                     |
| Fine Arts/Humanities/Social Sciences requirement                                   | 3 Hours     | Note 1  | Grade      |                     |
| IUNIOR YEAR- FALL SEMESTER: 15 hours   |             |   |            |                     |
| Courses  |             |   |            |                     |
| CS 3003 Distributed Systems  | 3 Hours     | Note 2  | Grade      |                     |
|  | 3 Hours     | Note 2  |            |                     |
| CS 3503 IT Security  | SHOUIS      | NOLE 2  | Grade      |                     |
| CS 3103 Algorithm Design or  | 2 110.000   | Noto 2  | Grada      |                     |
| CS 3223 Routing and Switching  | 3 Hours     | Note 2  | Grade      |                     |
| Concentration requirement/CS Elective  | 3 Hours     | Note 2 & 3  | Grade      |                     |
| History/Government Requirement   | 3 Hours     | Note 1  | Grade      |                     |
| UNIOR YEAR- SPRING SEMESTER: 15 hours  |             |   |            |                     |
| Courses  | <b>.</b>    |   |            |                     |
| CS 3013 Human Computer Interaction   | 3 Hours     | Note 2  | Grade      |                     |
| CS 3023 Research Methods in Information Tech                                       | 3 Hours     | Note 2  | Grade      |                     |
| CS 3113 Artificial Intelligence or<br>CS 4213 Identity Management                  | 3 Hours     | Note 2  | Grade      |                     |
| So .= 10 identity management   | 5 110015    |   | G. 44C     |                     |

| IDN:  | Printed Name:      |                      |                |  |
|---|--------------------|----------------------|----------------|--|
| Concentration requirement/CS Elective<br>Fine Arts/Humanities/Social Sciences requirement | 3 Hours<br>3 Hours | Note 2 & 3<br>Note 1 | Grade<br>Grade |  |
| SENIOR YEAR- FALL SEMESTER: 15 hours  |                    |                      |                |  |
| Courses   |                    |                      |                |  |

| courses  |         |            |       |
|--|---------|------------|-------|
| CS 3033 Computer Architecture                    | 3 Hours | Note 2     | Grade |
| CS 4003 Systems Analysis and Design              | 3 Hours | Note 2     | Grade |
| Concentration requirement/CS Elective            | 3 Hours | Note 2 & 3 | Grade |
| Concentration requirement/CS Elective            | 3 Hours | Note 2 & 3 | Grade |
| Fine Arts/Humanities/Social Sciences requirement | 3 Hours | Note 1     | Grade |
|  |         |            |       |

#### SENIOR YEAR- SPRING SEMESTER: 12 hours

| Courses  |         |            |       |
|--|---------|------------|-------|
| CS 4023 Senior Capstone                          | 3 Hours | Note 2 & 4 | Grade |
| Concentration requirement/CS Elective            | 3 Hours | Note 2 & 3 | Grade |
| Concentration requirement/CS Elective            | 3 Hours | Note 2 & 3 | Grade |
| Fine Arts/Humanities/Social Sciences requirement | 3 Hours | Note 1     | Grade |

## Total Hours: 120 At least 40 hours must be upper-level

#### NOTES

- 1. General Education Core requirements, see Graduation Requirements section of this catalog.
- 2. These courses are used to determine major courses in residency, see Graduation Requirements section of this catalog.
- Concentrations/CS Electives, 18 hours. Select two nine-hour concentrations, or one nine-hour concentration and nine hours of upper-level CS electives, or the data analytics concentration for 18 hours, or the general concentration with eighteen upper-level CS elective hours with approval from advisor.
- 4. Requires a grade of C or higher.
- 5. Consult with advisor to select either STAT 2503 or MATH 2854.

Prior to graduation students must demonstrate competency in financial literacy by satisfactory completion of FIN 1521 Personal Finance Applications (or an approved substitution) with a grade of C or better, or by a score of 70% or more on a challenge exam for FIN 1521.

# Depending on the Concentration you choose see below for course choices:

### **Programing C033**

# Select three courses from the following:

## Courses

| CS 3123 Business Application Programming I  | 3 Hours | Note 2 | Grade |
|---|---------|--------|-------|
| CS 3133 Business Application Programming II | 3 Hours | Note 2 | Grade |
| CS 3143 Game Design and Development         | 3 Hours | Note 2 | Grade |
| CS 3403 .Net Application Programming        | 3 Hours | Note 2 | Grade |
| CS 3533 Assembly Language Programming       | 3 Hours | Note 2 | Grade |
| CS 3543 Systems Programming                 | 3 Hours | Note 2 | Grade |
| CS 4103 Mobile Application Development      | 3 Hours | Note 2 | Grade |
| CS 4133 Cloud Application Development       | 3 Hours | Note 2 | Grade |
| CS 4143 Advanced Artificial Intelligence    | 3 Hours | Note 2 | Grade |
| CS 4153 Advanced Algorithms                 | 3 Hours | Note 2 | Grade |
| CS 4933 Competitive Programming             | 3 Hours | Note 2 | Grade |
|   |         |        |       |

# Networking C034

Select three courses from the following:

## Courses

| CS 3233 Network Services   | 3 Hours | Note 2 | Grade |
|----------------------------|---------|--------|-------|
| CS 4223 Computing at Scale | 3 Hours | Note 2 | Grade |
| CS 4233 Advanced Routing   | 3 Hours | Note 2 | Grade |
| CS 4503 Network Security   | 3 Hours | Note 2 | Grade |

IDN: \_\_\_\_\_

Printed Name:

# Security C037

Select three courses from the following:

| Courses  |          |        |       |
|--|----------|--------|-------|
| CS 3513 Applied Cryptography                   | 3 Hours  | Note 2 | Grade |
| CS 3523 Computer Forensics                     | 3 Hours  | Note 2 | Grade |
| CS 3543 Systems Programming                    | 3 Hours  | Note 2 | Grade |
| CS 4503 Network Security                       | 3 Hours  | Note 2 | Grade |
| CS 4523 Cyber Crimes                           | 3 Hours  | Note 2 | Grade |
| General C039                                   |          |        |       |
|  |          |        |       |
| Courses  |          |        |       |
| Select any six upper-level CS elective courses |          |        |       |
| with advisor approval.                         | 18 Hours | Note 2 | Grade |
|  |          |        |       |
| Data Analytics C051                            |          |        |       |
| Select six courses from the following:         |          |        |       |
|  |          |        |       |
| Courses  |          | _      |       |
| CS 3323 Computer Graphics                      | 3 Hours  | Note 2 | Grade |
| CS 3333 Big Data                               | 3 Hours  | Note 2 | Grade |
| CS 4153 Advanced Algorithms                    | 3 Hours  | Note 2 | Grade |
| CS 4323 Data Analytics                         | 3 Hours  | Note 2 | Grade |
| CS 4333 Machine Learning                       | 3 Hours  | Note 2 | Grade |
| CS 4343 Natural Language Processing            | 3 Hours  | Note 2 | Grade |
| CS 4933 Competitive Programming                | 3 Hours  | Note 2 | Grade |
| STAT 3503 Mathematical Statistics I            | 3 Hours  | Note 2 | Grade |
| MATH 3203 Applied Linear Algebra               | 3 Hours  | Note 2 | Grade |
| MATH 4443 Combinatorics                        | 3 Hours  | Note 2 | Grade |

#### **Transfer Course Information**

The Arkansas Course Transfer System (ACTS) contains information about the transferability of courses within Arkansas public colleges and universities. Students are guaranteed the transfer of applicable credits and the equitable treatment of the application of credits for the admissions and degree requirements. Courses transferability is not guaranteed for courses listed in ACTS as "No Comparable Courses." ACTS-Arkansas Course Transfer System <u>http://acts.adhe.edu</u> -select Course Transfer. See Acceptance of Transfer Credits section of the current academic catalog for a complete list of transfer provisions.

#### **Student Degree Program Requirements**

A student's degree program requirements are those specified in the catalog in effect at the time of declaration of program major. If not on the Guaranteed 8semester degree plan, students may choose to meet the program requirements specified in the catalog for a later year from when they began their program of study. Students must meet the above program requirements and the graduation requirements as indicated by institutional and college policy. The program can be changed only with the approval of the official advisor.

If original courses are eliminated, students may be required to meet new curriculum requirements in the degree program. If students are not enrolled for two or more consecutive terms (excluding summer terms), they must re-enter under the program requirements of the current catalog. Students are responsible for understanding program requirements and changes.

Guaranteed 8-Semester Degree Completion Program Pursuant to Act 1014 of 2005, qualified first-time freshmen with a declared major may elect to participate in the guaranteed 8-semester degree completion program. Students must follow the above degree plan and meet all requirements as outlined in the Guaranteed 8-semester Degree Completion Program contract. The contract and this degree plan must be signed and filed with the advisor before the first day of classes for the student's first term of attendance. The official copy of the contract and degree plan are filed in the Records Office.

Approved by Dr. Georgia Hale, March 1, 2018-Catalog Year 2018-2019. This document is not official until signed and dated by both the student and an authorized university representative.

| Student Signature | Date |
|-------------------|------|
| Advisor Signature | Date |