

COMPUTER SCIENCE
LOUISIANA TECH UNIVERSITY
Curriculum as of 2014

Name _____

Date _____

Student ID _____

Email _____

| COURSE | PREREQUISITE | SH | SCHED | GRADE |
|--|-----------------------------------|------------|-------|-------|
| CSC 100 | MATH 101 or equivalent | 3 | F,W | * |
| 120 | CSC 100 | 3 | W,Sp | * |
| 122 | CSC 120 | 3 | F, Sp | * |
| 220 | (CSC 122, MATH 240**) or CYEN 122 | 3 | F,W | * |
| 222 | CSC 122 | 3 | W | * |
| 265 | CSC 100, 269** | 2 | F | * |
| 269 | CSC 265** | 1 | F | * |
| 310 | CSC 220, MATH 311 | 3 | Sp | * |
| 325 | CSC 220, MATH 311** | 3 | F | * |
| 330 | CSC 325 | 3 | Sp | * |
| 345 | CSC 222 or (CSC 220, ENGR 122) | 3 | Sp | * |
| 364 | (CSC 265, 269) or ELEN 232 | 3 | Sp | * |
| 403 | CSC 325, senior standing | 3 | W | * |
| 404 | CSC 403 | 3 | Sp | * |
| ENGL 101 | | 3 | | |
| 102 | ENGL 101 | 3 | | |
| 210, 211, or 212 | ENGL 102 | 3 | | |
| 303 | ENGL 102 | 3 | | |
| 363 | ENGL 303 | 3 | | |
| MATH 240 | MATH 101 or by placement | 3 | | * |
| 241 | MATH 240 | 3 | | * |
| 242 | MATH 241 | 3 | | * |
| 311 | MATH 242 | 3 | F,Sp | |
| PHYS 201 | MATH 241 | 3 | | * |
| 202 | PHYS 201, MATH 242 | 3 | | |
| 261 | MATH 112 or MATH 241 | 1 | | |
| 262 | PHYS 261 | 1 | | |
| STAT 405 | MATH 242 | 3 | | |
| MINOR/CONCENTRATION | | | | |
| Course 1 | | 3 | | |
| Course 2 | | 3 | | |
| Course 3 | | 3 | | |
| Course 4 | | 3 | | |
| ELECTIVES | | | | |
| ART (ART 290, KINE 280, MUGN 290, or THTR 290) | | 3 | | |
| HIST _____ | See note 5 | 3 | | |
| BISC 130 | | 3 | | |
| BISC 131 | | 1 | | |
| Social Science | ECON 202 | 3 | | |
| Social Science | See note 1 and 5 | 3 | | |
| Social Science | | 3 | | |
| CSC Directed Elective | | 3 | | * |
| CSC Directed Elective | | 3 | | * |
| CSC Directed Elective | | 3 | | * |
| Math/Science Elective | | 3 | | |
| TOTAL SEMESTER HOURS | | 120 | | |

| SUBSTITUTIONS | APPR | SH | GRADE |
|---------------|-------|-------|-------|
| 1 _____ | _____ | _____ | _____ |
| 2 _____ | _____ | _____ | _____ |
| 3 _____ | _____ | _____ | _____ |
| 4 _____ | _____ | _____ | _____ |
| 5 _____ | _____ | _____ | _____ |
| 6 _____ | _____ | _____ | _____ |
| 7 _____ | _____ | _____ | _____ |

| ADDITIONAL COURSES | SH | GRADE |
|--------------------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

NOTES

* Requires grade of "C" or better before taking a course for which this is a pre-requisite
Check concentration sheet for those pre-requisites.

** Credit or registration in

- Social Science electives must include at least two disciplines, selected from Economics, Geography, Political Science, Psychology, or Sociology.
- CSC directed electives must be selected in consultation with student's advisor.
- Substitutions must be initialed by Program Chair. Put substitution number in the "grade" blank of the course being replaced.
- A student must have a minimum 2.0 grade point average on all hours pursued in courses designated as CSC (Computer Science).
- All students must complete an International Education Requirement. HIST 102, GEOG 205, and GEOG 210 are acceptable for this requirement.
- Must be in Mathematics or Science, above req'd.

Comments: _____

Advisor's Name _____

COMPUTER SCIENCE LOUISIANA TECH UNIVERSITY

Name _____

Date _____

Student ID _____

Email _____

| FRESHMAN YEAR | | | | | | | | | | | | | | |
|---------------|------------------------------|----|----|--------------|-------------------------------|----|--|-----------|---------------------------|----------------|--|--|----|----|
| Fall Quarter | | | Cr | Gr | Winter Quarter | | | Cr | Gr | Spring Quarter | | | Cr | Gr |
| CSC 100* | Overview of Computer Science | 3 | | CSC 120* | Intro to Computer Programming | 3 | | CSC 122* | Intermediate Comp Program | 3 | | | | |
| MATH 240* | Math for Engr & Science | 3 | | MATH 241* | Calculus I | 3 | | MATH 242* | Calculus II | 3 | | | | |
| ENGL 101 | Freshmen Composition I | 3 | | HIST ___ *** | | 3 | | BISC 130 | Biological Principles | 3 | | | | |
| UNIV 100 | University Seminar | 1 | | ENGL 102 | Freshmen Composition II | 3 | | BISC 131 | Biological Principles Lab | 1 | | | | |
| | | 10 | | | | 12 | | | | 10 | | | | |

| SOPHOMORE YEAR | | | | | | | | | | | | | | |
|----------------|--------------------------|----|----|--------------------|---------------------------|----|--|--------------------|------------------------|----------------|--|--|----|----|
| Fall Quarter | | | Cr | Gr | Winter Quarter | | | Cr | Gr | Spring Quarter | | | Cr | Gr |
| CSC 220* | Data Structures | 3 | | CSC 222* | Systems Programming | 3 | | CSC 345* | Operating Systems | 3 | | | | |
| CSC 265* | Intro to Digital Design | 2 | | PHYS 202 | Physics for Engr & Sci II | 3 | | MATH 311 | Discrete Mathematics | 3 | | | | |
| CSC 269* | Digital Design Lab | 1 | | PHYS 262 | Physics Lab | 1 | | ART† | Fine Arts Appreciation | 3 | | | | |
| PHYS 201* | Physics for Engr & Sci I | 3 | | Social Science *** | | 3 | | Social Science *** | | 3 | | | | |
| PHYS 261 | Physics Lab | 1 | | | | | | | | | | | | |
| | | 10 | | | | 10 | | | | 12 | | | | |

| JUNIOR YEAR | | | | | | | | | | | | | | |
|----------------------------------|------------------------------|---|----|-----------------------|-------------------|----|--|----------|-----------------------|----------------|--|--|----|----|
| Fall Quarter | | | Cr | Gr | Winter Quarter | | | Cr | Gr | Spring Quarter | | | Cr | Gr |
| CSC 325* | Advanced Data Struct & Algor | 3 | | ECON 202 | Economics | 3 | | CSC 310* | Theory of Computing | 3 | | | | |
| MATH/SCI Elective | | 3 | | CSC Directed Elective | | 3 | | CSC 364* | Computer Architecture | 3 | | | | |
| ENGL 210, 211, or 212 Literature | | 3 | | ENGL 303 | Technical Writing | 3 | | CSC 330* | Programming Languages | 3 | | | | |
| | | | | Minor/Concentration | | 3 | | | | | | | | |
| | | 9 | | | | 12 | | | | 9 | | | | |

| SENIOR YEAR | | | | | | | | | | | | | | |
|-----------------------|-------------------------------|---|----|---------------------|-------------------------------|---|--|-----------------------|-----------------|----------------|--|--|----|----|
| Fall Quarter | | | Cr | Gr | Winter Quarter | | | Cr | Gr | Spring Quarter | | | Cr | Gr |
| CSC Directed Elective | | 3 | | CSC 403* | Software Design & Engineering | 3 | | CSC 404* | Senior Capstone | 3 | | | | |
| Minor/Concentration | | 3 | | STAT 405 | Statistical Methods | 3 | | CSC Directed Elective | | 3 | | | | |
| ENGL 363 | Scientific/Tech Presentations | 3 | | Minor/Concentration | | 3 | | Minor/Concentration | | 3 | | | | |
| | | 9 | | | | 9 | | | | 9 | | | | |

* Grade of C or higher required before taking a course for which this one is a prerequisite.
 **Directed electives are chosen in consultation with advisor and approved by the Program Chair.
 *** HIST 102, GEOG 205, or GEOG 210 count as the International Education Requirement (IER).
 † ART 290, KINE 280, MUGN 290, or THTR 290 counts as the Fine Arts Requirement.
 Courses in **bold** are typically offered only once per year.

**COMPUTER SCIENCE
LOUISIANA TECH UNIVERSITY**

Name _____

Concentrations

Date _____

Student ID _____

Email _____

BIOINFORMATICS CONCENTRATION

| Course | Name | Cr | Grd | Prerequisites |
|--------------|--|-----------|-----|--|
| CSC 486 | Introduction to Biocomputing | 3 | | CSC 310 |
| CSC 487 | Advanced Biocomputing | 3 | | CSC 486 |
| CSC 493 | Data Mining and Knowledge Discovery | 3 | | CSC 325 or equivalent or consent of instructor |
| CSC 498 | Advanced Data Mining, Fusion, and Applications | 3 | | |
| Total | | 12 | | |

CLOUD COMPUTING AND BIG DATA CONCENTRATION

| Course | Name | Cr | Grd | Prerequisites |
|--------------|--|-----------|-----|--|
| CSC 485 | High Performance and Availability Computing | 3 | | CSC 345 or equivalent or consent of instructor |
| CSC 493 | Data Mining and Knowledge Discovery | 3 | | CSC 325 or equivalent or consent of instructor |
| CSC 498 | Advanced Data Mining, Fusion, and Applications | 3 | | |
| CSC 450 | Computer Networks | 3 | | CSC 345 |
| or 475 | Artificial Intelligence | | | CSC 330 |
| Total | | 12 | | CSC 330 |

CYBER SECURITY CONCENTRATION

| Course | Name | Cr | Grd | Prerequisites |
|-----------------------|-----------------------------------|-----------|-----|----------------------------------|
| CSC 442 | Introduction to Cyber Security | 3 | | CSC 450 or consent of instructor |
| CSC 450 | Computer Networks | 3 | | CSC 345 |
| Two of the following: | | 6 | | |
| CSC 443 | Digital Forensics and Cyber Crime | | | CSC 435 or 450 |
| CSC 454 | Advanced Computer Networks | | | CSC 450 |
| CSC 475 | Artificial Intelligence | | | CSC 330 |
| MATH 460 | Number Theory | | | MATH 307 or MATH 311 |
| Total | | 12 | | |

GRAPHICS AND GAME DESIGN CONCENTRATION

| Course | Name | Cr | Grd | Prerequisites |
|--------------|--------------------------------|-----------|-----|--|
| CSC 470 | Computer Graphics | 3 | | CSC 325 |
| CSC 475 | Artificial Intelligence | 3 | | CSC 330 |
| ART 464 | Advanced Communication Media | 3 | | ART 362, 365, or consent of instructor |
| MATH 308 | Introduction to Linear Algebra | 3 | | MATH 244 |
| Total | | 12 | | |