# Computer Science, B.S. *major*
# Web and Ux Emphasis

These programs offer professional training in both the design and computer science fields, integrating design courses with a strong foundation in computer programming.

*These programs are comprised of current courses offered at BSU.

A total of 120 semester credits are needed for the **Computer Science, Web and UX emphasis B.S.** degree and include the following:

- Completion of a minimum of 40 upper division credits (level 3000/4000)
- Completion of all required major credits
- Completion of Core Curriculum credits (Minnesota Transfer Curriculum [MnTC] Goal Areas 1-10 with a minimum of 40 credits) required for all baccalaureate degrees
- Completion of BSU Focus and Nisidotaading Course Requirements

Dual Degrees
Students wishing to complete two degrees concurrently, (example: Bachelor of Science and Bachelor of Arts) must complete a minimum of an additional 30 credits above the required 120 credits.

Multiple Credentials
Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

Required Credits: 63
Required GPA: 2.00

## REQUIRED CORE COURSES

Complete the following courses:

- CS 1310 Computational Problem Solving & Society (3 credits)
- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)
- CS 4390 Social, Ethical, and Professional Issues in Computing (3 credits)
  *or* BUAD 3520 Business Ethics (3 credits)
- COMM 1100 Public Speaking (3 credits)
  *or* COMM 2100 Career and Professional Communication (3 credits)
- MATH 1170 College Algebra (3 credits)
  *or* MATH 1470 Precalculus (3 credits)
  *or* MATH 2471 Calculus I (5 credits)

## REQUIRED DESIGN COURSES

Complete the following courses:

- TADD 1500 Adobe Illustrator (2 credits)
- TADD 1550 Adobe Photoshop (2 credits)
- TADD 1600 Fundamentals of Digital Photography (2 credits)
- TADD 2300 Introduction to Typography (2 credits)
- TADD 2310 Artificial Intelligence for Art & Design (2 credits)
- TADD 2550 Adobe InDesign (2 credits)
- TADD 3449 Adobe Premiere Pro (2 credits)
- TADD 3800 Adobe After Effects (2 credits)
- TADD 3850 Digital Signage (2 credits)
- TADD 4020 Web & Social Media Design (2 credits)
- TADD 4040 UX Design (2 credits)
- TADD 4840 Advanced Interactive Multimedia Design (2 credits)

## REQUIRED COMPUTER SCIENCE COURSES

Complete the following courses:

- CS 3270 Web Programming (4 credits)
- CS 3370 Mobile Application Development (3 credits)
- CS 3507 Introduction to Databases (3 credits)
  *or* BUAD 4385 Data Modeling and Visualization (3 credits)

## OTHER REQUIRED COURSES

Complete the following courses:

- MASC 3600 Social Media Marketing (3 credits)
- MASC 4220 Multimedia Marketing (3 credits)
- ENGL 2150 Technical Writing (3 credits)
  *or* ENGL 3150 Writing In The Disciplines (3 credits)
  *or* ENGL 3155 Professional Writing (3 credits)

**Program Learning Outcomes | Computer Science, B.S. Web & UX emphasis**

1. Problem solving: Students will demonstrate understanding of multiple problem solving techniques and how to apply them algorithmically.

2. Core areas: Students will demonstrate knowledge of core areas and how to apply them towards solving problems in computer science and other disciplines.

3. Communication: Students will communicate effectively with a wide range of audiences.

4. Productive in teams: Students will work productively in teams.

5. Broad knowledge of field: Students will demonstrate a broad knowledge of the field through the different electives offered.

6. Professional and ethical: Students will develop a basis for making professional and ethical decisions that pertain to the software they are developing.

7. Programming languages: Students will demonstrate proficiency in a programming language and ability to learn new ones on their own.