Washburn University
Bachelor of Science in Computer Information Science
With Concentration in Data Science
As of August 2023, Expires Summer 2030

CIS Core – 13 hours
CM111 Intro to Structured Programming (4)
CM231 Computer Organization/Assembler (3)
CM245 Contemporary Programming Methods (3)
CM261 Networked Systems (3) (F)

CIS Required – 21 hours
CM307 Data Structs. & Alg. Analysis (3) (S)
CM322 Operating Systems (3) (F)
One of the following two:
   CM331 Artificial Intelligence (3) (F) or
   CM332 Data Mining (3) (F)
CM333 Software Engineering (3) (F)
CM334 Modeling with VBA/Excel (3) (S)
CM336 Database Management Systems (3) (S)
CM465 CIS Capstone Project (3)

Approved Elective CM Coursework – 12 hours
Courses should be selected in consultation with a department advisor. A minimum of 6 hours must be upper-division.
(F) Indicates Fall Semester only. (E) Even years only.
(S) Indicates Spring Semester only. (O) Odd years only.

Correlated – 41 hours
CN150 Public Speaking (*HU) (3)
MA140 Statistics (*NSM) (3)
MA151 Calculus (*NSM) (5)
EC200 Principles of Microeconomics (*SS) (3)
EC201 Principles of Macroeconomics (*SS) (3)
MA206 Discrete Math for Computing (3)
EN208 Professional Writing (*HU) (3)
PH220 Logic (*HU) (3)
One of the following two:
   CN340 Professional Interviewing (3) or
   CN341 Persuasive Speaking (*HU) (3)
One of the following two:
   BU342 Organization and Management (3) or
   BU346 Organizational Behavior (3)
MA301 Linear Algebra (3)
MA342 (3)(F)(O) or MA346 (3)(F)(E)
MA344 (3)(F)(O) or MA384 (3)(F)(E)

*These courses are part of the gen ed program.

University and General Education Requirements

For a complete listing of the requirements for the Bachelor's degree, please consult the University catalog. Although you, the student, are ultimately responsible for ensuring that the minimum degree requirements are met, you should choose a departmental advisor during your freshman year to assist you.

English
EN101 First-Year Writing (3)
EN300 Advanced College Writing (3)

The Washburn Experience
WU101 The Washburn Experience (3)

Mathematics Competency
Successful Completion of MA140

Gen. Ed. Humanities (*HU) – 9 hrs
At least 3 hrs in Art, Music, or Theatre (AMT)
Maximum of 6 hrs per discipline

Gen. Ed. Nat. Science/Math (*NSM) – 9 hrs
Maximum of 6 hrs per discipline

Gen. Ed. Social Sciences (*SS) – 9 hrs
Maximum of 6 hrs per discipline. Should take PY or SO or both as prerequisites for BU342/346.

30-Hour Concentration in Natural Sciences/Math
A **thirty-hour concentration** in Mathematics and Natural Sciences is required with at least **20** of the **30** hours in **one discipline**. The courses must be approved by the Department. **(If the concentration is in Math, then MA152 is required)**.

Notes:
1. Of the minimum **120** hours required to graduate, **80** hours must be **outside your major**.
2. Of the minimum **120** hours required to graduate, **99** hours must be **College of Arts & Sciences** credits.
3. You must take at least **45** hours of **upper-division** coursework (numbered 300 or above). The courses listed above total 45 hours in upper-division.
4. No course required for the degree (major, minor, or correlated) may be taken pass/fail and a **grade of C or better** is required.
5. Transfer students must take at least **9** hours of **upper-division** CM courses from Washburn. Transfer hours in your major must be approved by the Department. At least 25% of credit hours required for the major must be taken at Washburn.

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(785) 670-1739

Dr. Nan Sun, Chair
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