

COMPUTER SCIENCE, B.A.

Requirements for a Major in Computer Science

The Bachelor of Arts degree with a major in computer science provides a traditional liberal arts education with a solid set of core courses in computer science. These courses provide the foundation necessary for advancement in computer science. During the sophomore year, a student selects one of several areas of concentration. Students may choose a concentration program from computer science or any approved minor in another discipline.

An important characteristic of the Baylor computer science program is the integration of software, hardware, theory, and design methodology throughout the curriculum. A highly personalized education is provided by faculty who are dedicated to undergraduate education with small classes and state-of-the-art laboratories. The programs are broadly based to prepare computer science graduates for the increasingly complex and ever-changing field of computer science.

In addition to a Bachelor of Arts degree with a major in computer science, the Department of Computer Science offers a Bachelor of Science in Computer Science (B.S.C.S.) degree accredited by the

Computing Accreditation Commission of the Accreditation Board for Engineering and Technology
111 Market Place, Suite 1050
Baltimore, MD 21202-4012
Telephone: (410) 347-7700

The requirements for the B.S.C.S. and B.S.I. are presented in the School of Engineering & Computer Science section of the Undergraduate Catalog.

Option A - Computer Science Major (Computer Science Concentration)

| Code | Title | Hours |
|---|---|-------|
| Required Courses | | |
| Fifty-two semester hours of computer science including the following: | | |
| CSI 1430 | Introduction to Computer Science I with Laboratory | 4 |
| CSI 1440 | Introduction to Computer Science II with Laboratory | 4 |
| CSI 2334 | Introduction to Computer Systems | 3 |
| CSI 2350 | Discrete Structures | 3 |
| CSI 3334 | Data Structures | 3 |
| CSI 3335 | Database Design and Applications | 3 |
| CSI 3336 | Systems Programming | 3 |
| CSI 3344 | Introduction to Algorithms | 3 |
| CSI 3372 | Software Engineering II | 3 |
| CSI 3439 | Computer Architecture | 4 |
| CSI 3471 | Software Engineering I | 4 |
| CSI 4321 | Data Communications | 3 |
| CSI 4330 | Foundations of Computing | 3 |
| CSI 4337 | Introduction to Operating Systems | 3 |
| CSI 43C9 | Capstone Design Project | 3 |
| Three semester hours of 3000-4000 CSI courses | | 3 |

Additional Requirements

A grade of "C" or better is required in all computer science hours counted toward the major.

| | | |
|---|--|-----------|
| Subtotal | | 52 |
| Required Courses in Other Fields | | |
| PWR 3300 | Technical Writing | 3 |
| MTH 1321 | Calculus I | 3 |
| STA 2381 or STA 3381 | Introductory Statistical Methods Probability and Statistics | 3 |
| CSS 1302 | Speech for Business and Professional Students | 3 |
| Total Hours | | 64 |

¹ "C" or better in MTH 1322 Calculus II is the prerequisite for STA 3381 Probability and Statistics

Option B - Computer Science Major (Additional Minor Concentration)

| Code | Title | Hours |
|---|---|-------|
| Required Courses | | |
| Forty-two semester hours of computer science including the following: | | |
| CSI 1430 | Introduction to Computer Science I with Laboratory | 4 |
| CSI 1440 | Introduction to Computer Science II with Laboratory | 4 |
| CSI 2334 | Introduction to Computer Systems | 3 |
| CSI 2350 | Discrete Structures | 3 |
| CSI 3334 | Data Structures | 3 |
| CSI 3335 | Database Design and Applications | 3 |
| CSI 3336 | Systems Programming | 3 |
| CSI 3344 | Introduction to Algorithms | 3 |
| CSI 3372 | Software Engineering II | 3 |
| CSI 3471 | Software Engineering I | 4 |
| CSI 4321 | Data Communications | 3 |
| CSI 4337 | Introduction to Operating Systems | 3 |
| CSI 43C9 | Capstone Design Project | 3 |

Additional Requirements

A grade of "C" or better is required in all computer science hours counted toward the major

| | | |
|---|--|-----------|
| Subtotal | | 42 |
| Required Courses in Other Fields | | |
| Complete any minor conferred by the College of Arts & Sciences other than the computer science minor. | | |
| PWR 3300 | Technical Writing | 3 |
| MTH 1321 | Calculus I | 3 |
| STA 2381 or STA 3381 | Introductory Statistical Methods Probability and Statistics | 3 |
| CSS 1302 | Speech for Business and Professional Students | 3 |
| Total Hours | | 54 |

¹ "C" or better in MTH 1322 Calculus II is the prerequisite for STA 3381 Probability and Statistics

Note: The following courses are not applicable to the major or minor in computer science or as degree electives without written permission from the Computer Science Department Chair:

| Code | Title | Hours |
|-------------|-----------------------------------|--------------|
| CSI 1337 | Introduction to Video Game Design | 3 |
| CSI 1401 | Introduction to Programming I | 4 |
| CSI 1402 | Introduction to Programming II | 4 |
| CSI 2300 | Introduction to Data Science | 3 |
| CSI 3303 | Information Technology | 3 |