

COURSE TRACKS FOR COMPUTER SCIENCE BUSINESS ADMINISTRATION (CSBA)

The Computer Science / Business Administration program (CSBA) allows students to study both computer science and business in four years, focusing on the core subjects of each discipline. CSCI 102 is the introductory course for this program and the appropriate course for students with limited or no prior computer programming experience. Students who earn a 4 or 5 on the AP Computer Science A exam, or pass the CSCI 102 Challenge Exam, are able to begin in the next level of courses.

***Please review the prerequisites for upper-division CSCI courses on the next page.*

Computer Science Business Administration — Begin with CSCI 103

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
GESM (GE B) [#] 4	CSCI 103L CSCI 102 4	WRIT 150 4	BASIC SCIENCE (GE D OR E) [*] 4	BUAD 310 or 312 or EE 364 MATH 225 or MATH 407 MATH 226 4	CSCI ELECTIVE 4	WRIT 340 WRIT 150 4	GE E or D [*] 4
MATH 125 (GE F) [*] 4	MATH 126 OR 129 [*] MATH 125 4	MATH 225 or MATH 235 MATH 126 or 129 or EE 141L 4	CSCI 201L CSCI 104L 4	BUAD 302 4	CSCI 310L CSCI 201L 4	BUSINESS ELECTIVE 2-4	GE B 4
GE C 4	ECON 351 MATH 125 or 126 or 226 4	ECON 352 (ECON 351) 4	CSCI 270 CSCI 104L, CSCI 170 4	GE A [*] 4	GE C 4	CSCI 401 CSCI 270, CSCI 310 4	BUAD 497 ACCT 410x and ECON 352 4
BUAD 304 4	CSCI 170 CSCI 102 4	CSCI 104L CSCI 103L, CSCI 170 4	ACCT 410x 4	BUAD 307 4	BUAD 306 4	BUAD 311 or BUAD 313 BUAD 310 or BUAD 312 or EE 364 or MATH 407 4	CSCI/BUSINESS ELECTIVE 4
ENGR 102 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2-4	OPTIONAL ELECTIVE 2

Computer Science Business Administration — Begin with CSCI 102

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
GE C 4	GESM (GE B) [#] 4	BUAD 302 4	CSCI 104L CSCI 103L, CSCI 170 4	BUAD 310 or 312 or EE 364 MATH 225 or MATH 407 MATH 226 4	CSCI ELECTIVE 4	WRIT 340 WRIT 150 4	GE E or D [*] 4
MATH 125 (GE F) [*] 4	MATH 126 OR 129 [*] MATH 125 4	ECON 352 (ECON 351) 4	MATH 225 or MATH 235 MATH 126 or 129 or EE 141L 4	CSCI 201L CSCI 104L 4	CSCI 310L CSCI 201L 4	BUSINESS ELECTIVE 2-4	GE B 4
WRIT 150 4	ECON 351 MATH 125 or 126 or 226 4	CSCI 170 CSCI 102 4	BUAD 307 4	GE A [*] 4	GE C 4	CSCI 401 CSCI 270, CSCI 310 4	BUAD 497 ACCT 410x and ECON 352 4
BUAD 304 4	BASIC SCIENCE (GE D OR E) [*] 4	CSCI 103L CSCI 102 4	ACCT 410x 4	CSCI 270 CSCI 104L, CSCI 170 4	BUAD 306 4	BUAD 311 or BUAD 313 BUAD 310 or BUAD 312 or EE 364 or MATH 407 4	CSCI/BUSINESS ELECTIVE 4
ENGR 102 2	CSCI 102L 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2-4	OPTIONAL ELECTIVE 2

Computer Science Business Administration. Please see previous page.

Mathematics (12 Units)

- MATH 125: Calculus I*
- MATH 126 or MATH 129: Calculus II*
- MATH 225: Linear Algebra & Diff. Equations
- or MATH 235: Linear Algebra & Applications
- or EE 141: Applied Linear Algebra for Engineering

Statistics & Probability (4 Units)

- BUAD 310: Applied Business Statistics
- BUAD 312: Statistics and Data Science for Business
- or EE 364: Intro to Probability & Statistics
- or MATH 407: Probability Theory

General Education (24 Units)

- GE A The Arts (1 Course)*
- GE B Humanistic Inquiry (2 Courses)
- GE C Social Analysis (2 Courses)
- GE D Life Sciences (1 Course)*
- GE E Physical Sciences (1 Course)*
- GE F Quantitative Reasoning (1 Course)*
- GE G,H Global Perspectives (2 Courses)*
- GESM General Education Seminar (1 Course)

Basic Science (4 Units)

- BISC 120L: General Biology
- BISC 121: Advanced General Biology
- CHEM 105a: General Chemistry
- CHEM 115a: Advanced General Chemistry
- PHYS 151: Fundamentals of Physics I
- PHYS 161: Advanced Principles of Physics I

Business Requirements (36 Units)

(With Prerequisites)

- ACCT 410X: Accounting for Non-Business Majors
- BUAD 302: Communication Strategy in Business
- BUAD 304: Organizational Behavior
- BUAD 306: Business Finance
- BUAD 307: Marketing Fundamentals
- BUAD 311: Operations Management
- or BUAD 313: Advanced Operations Management & Analytics
- BUAD 497: Strategic Management
- ECON 351: Microeconomics for Business
(ACCT 410 and ECON 352)
- ECON 352: Macroeconomics for Business.
(1 from: MATH 118 or MATH 125 or MATH 126 or MATH 226)

Computer Science (32 Units)

(With Prerequisites)

- CSCI 102: Fundamentals of Computation
- CSCI 103L: Introduction to Programming (CSCI 102)
- CSCI 104L: Data Structures & Obj. Orient. Design (CSCI 103 and CSCI 170)
- CSCI 170: Discrete Methods in Comp. Science (CSCI 102)
- CSCI 201L: Princ. of Software Development (CSCI 104)
- CSCI 270: Intro. to Algorithms & Theory of Computing (CSCI 104 and CSCI 170)
- CSCI 310: Intro. to Software Engineering (CSCI 201)
- CSCI 401: Capstone: Design & Construction of Large Software Systems (CSCI 270 and CSCI 310)
- or 404: Capstone: Creating Your High-Tech Startup (CSCI 201, CSCI 270 and TAC 466)
- ENGR 102: Engineering Freshman Academy

Technical Electives (8 Units)

- Computer Science Electives: Take at least one 4-unit 300- or 400-level CSCI course.
- Business Electives: Take at least four units of 300- or 400-level courses offered by the Marshall School, specifically with a prefix of ACCT, BAEP, BUCO, BUAD, DSO, FBE, MKT, MOR, or RISK.

Writing (8 Units)

- WRIT 150: Writing and Critical Reasoning
- WRIT 340: Advanced Writing

SPECIAL NOTES

- **Courses with the * symbol** may be satisfied with AP, IB or A-Level exams. See page 18 for more information.
- **GESM#:** GESM can be taken from GE categories: A, B, C, or D. Courses listed in the guide are options for a four-year course plan.
- **GE:** Engineering students are encouraged to satisfy GE-G and GE-H with a course that also satisfies a Core Literacy. GE-H may be satisfied by AP/IB. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 17 for more information and consult your advisor for detailed assistance.
- **Grade Qualifier:** A grade of a C (2.0) or better is required for each of the core courses (CSCI 103, 170, 104 & 201). Courses with a grade of C- or below must be repeated; courses may only be retaken once with department approval.
- **Senior Design Project:** EE 459L.
- **Technical Electives:** See approved tech elective list on CS webpage.