

Requirements for Bachelor of Science in Computer Science and Business

Total required credit hours: 136

Required Computer Science courses (35-36 credit hours):

- CSE 001 Breadth of Computing (2) or CSE 012 Survey of Computer Science¹
- CSE 002 Fundamentals of Programming (2)
- CSE 017 Programming and Data Structures (3)
- CSE 109 Systems Programming (4)
- CSE 202 Computer Organization and Architecture (3)
- CSE 216 Software Engineering (3)
- CSE 241 Database Systems and Applications (3) or CSE 341 Database Systems, Algorithms, and Applications (3)
- CSE 261 Discrete Structures (3)
- CSE 262 Programming Languages (3)
- CSE 303 Operating System Design (3)
- CSE 340 Design and Analysis of Algorithms (3)
- One course drawn from this list. (3 or 4 credits)*
 - CSE 264 Web Systems Programming (3)
 - CSE 265 System and Network Administration (3)
 - CSE 271 Programming in the C and Unix Environment (3)
 - CSE 302 Compiler Design (3)
 - CSE 313 Computer Graphics (3)
 - CSE 318 Introduction to the Theory of Computation (3)
 - CSE 319 Image Analysis and Graphics (3)
 - CSE 326 Pattern Recognition (3)
 - CSE 327 Artificial Intelligence Theory and Practice (3)
 - CSE 331 User Interface Systems and Techniques (3)
 - CSE 334 Software System Security (3)
 - CSE 335 Topics on Intelligent Decision Support Systems (3)
 - CSE 336 Embedded Systems (3)
 - CSE 337 Reinforcement Learning (3)
 - CSE 342 Fundamentals of Internetworking (4)
 - CSE 343 Network Security (3)
 - CSE 345 WWW Search Engines (3)
 - CSE 347 Data Mining (3)
 - CSE 348 AI Game Programming (3)
 - CSE 360 Introduction to Mobile Robotics (3)
 - CSE 363 Network System Design (3)
 - CSE 375 Principles and Practice of Parallel Computing (3)
- Or other courses as approved by the program co-directors

Required Business courses (34 credit hours):

- BUS 001 Introduction to Business in a Global Environment (3)²

¹ Students entering the CSB program after a year in the P.C. Rossin College of Engineering may use ENGR 010 in place of CSE 001

ACCT 151 Introduction to Financial Accounting (3)
ACCT 152 Introduction to Managerial Accounting (3)
ECO 001 Principles of Economics (4)
ECO 029 Money, Banking and Financial Markets (3)
ECO 146 Applied Microeconomics (3)
FIN 125 Introduction to Finance (3)
LAW 201 Legal Environment of Business (3)
SCM 186 Supply Chain Operations Management (3)
MGT 301 Strategic Management in a Global Environment (3)
MKT 111 Principles of Marketing (3)

Required CSB courses (9 credit hours):

CSB 311 Computer Applications in Business (3)
CSB 312 Design of Integrated Business Applications I (3)
CSB 313 Design of Integrated Business Applications II (3)

Required CSB electives (9 credit hours):

Nine hours of courses approved by the CSB program co-directors. See CSB Tracks for suggestions but note that it is not required to follow a track.

Required Math courses (14 credit hours):

MATH 021 Calculus I (4) **OR** MATH 075 (2) followed by MATH 076 (2)
MATH 022 Calculus II (4)
MATH 205 Linear Methods (3)
MATH 231 Probability & Statistics (3) **OR** ECO 45 Statistical Methods (3)

Required Science courses (12 credit hours):

Twelve credits of Natural Sciences (NS), such that one course has an attached laboratory and such that two courses are in a laboratory science with the first course prerequisite to the second course. There are some NS courses that, though in a laboratory science, do not include a laboratory; instead the “attached lab” has a separate course number.

Required Humanities and Social Science courses (18 credit hours):

ENGL 001 Composition and Literature (3)
International students may be placed in ENGL 3 instead of ENGL 1.
ENGL 002 Composition and Literature II (3)
ENGL 11 may be used in place of ENGL 2 by students who with AP credit for ENGL 1.
CSE 252 Computers, the Internet, and Society (3)
6 additional credit hours in the humanities (HU).
3 additional credit hours in the social sciences (SS).

Free Electives (4 - 5 credits for a total of 136 credits)

² Students entering the CSB program after a year in the P.C. Rossin College of Engineering may use ENGR 005 in place of BUS 001, but the 136 credit hour requirement remains.
Students entering the CSB program from the College of Arts and Sciences must take BUS 002 instead of BUS 001, but may do so only after first completing both ECO 001 and some 100-level business course.