

Computer Science ADT to BS - Computer Science

| Computer Science ADT to Business Analytics B.S. | | | | | |
|--|------------------|------------|--------|--------------|-------|
| Title | C-ID Designation | C-ID Units | Double | CSUEB Course | Units |
| Programming Concepts & Methodology I (CS1) | COMP 122 | 3 | | | |
| Programming Concepts & Methodology II (CS2) | COMP 132 | 3 | | | |
| Computer Architecture & Organization | COMP 142 | 3 | | | |
| Discrete Structures | COMP 152 | 3 | | | |
| Choose 1 | | | | | |
| Single Variable Calculus I and II – Early Transcendentals (min. 8 units) | | 8 | 4 | | |
| or | | | | | |
| Single Variable Calculus I and II – Late Transcendentals (min. 8 units) | | 8 | 4 | | |
| or | MATH 210 and 220 | 8 | 4 | | |
| Single Variable Calculus Sequence (min. 8 units) | | | | | |
| or | | | | | |
| | MATH 211 and 221 | 8 | 4 | | |
| or | | | | | |
| | MATH 900S | 8 | 4 | | |
| Choose 1 | PHYS 205 | 4 | | | |
| or | | | | | |
| Cell and Molecular Biology | | 4 | | | |
| or | | | | | |
| Organismal Biology | | 4 | | | |
| Choose 1 | | | | | |
| | PHYS 210 | 4 | 4 | | |
| General Chemistry for Science Majors I, with Lab (min. 5 units) | | | | | |
| or | | | | | |
| | BIOL 190 | | 3-4 | | |
| or | | | | | |
| | BIOL 140 | | 3-4 | | |
| or | | | | | |
| | CHEM 110 | | 3-4 | | |
| TOTAL MAJOR UNITS | | 28 | | | |
| CSU GE Requirements | | 39 | | | |
| Double Counting GE | | 7-8 | | | |
| Elective | | 0 | | | |
| Total Units | | 60 | | | |

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Please note: A minimum of three courses in the Upper Division General Education pattern must have a topic/learning outcome oriented toward one of the following topic areas (overlays): **Diversity (DIV)**, **Social Justice (SJ)**, or **Sustainability (S)**.

| Upper Division GE/Overlay | Courses | Overlay | Units |
|---------------------------|---------|--------------------|----------|
| GE-UD-B | BAN 320 | Sustainability | 0 |
| GE-UD-C | | | 3 |
| GE-UD-D | | | 3 |
| | | Total Units | 6 |

| University Writing Requirement | Course | GE/Overlay | Units |
|--------------------------------|--------|--------------------|----------|
| UWR | | | |
| | | Total Units | 3 |

| Upper Division Coursework | Course | GE/Overlay | Units |
|---------------------------|--|-------------------------|-----------|
| BAN 310 | Data Analysis with Python I | | 3 |
| BAN 315 | Data Analysis with Python II | | 3 |
| BAN 320 | Optimization and Simulation | GE-UD-B; Sustainability | 3 |
| BAN 331 | Database Management and SQL | | 3 |
| BAN 340 | Machine Learning for Business Applications | | 3 |
| BAN 350 | Data Wrangling and Data Pipeline | | 3 |
| BAN 441 | Business Data Visualization and Reporting (crosslist: ITM 441) | Social Justice | 3 |
| BAN 449 | Big Data and Business Applications | | 3 |
| BAN 499 | Capstone Seminar | | 3 |
| MKTG 305 | Business Communication | | 3 |
| | | Total Units | 30 |

Marketing Analytics Concentration Required

Students must complete three courses of the following for 6 units:

| | | | |
|----------|----------------------|--------------------|----------|
| MKTG 300 | Marketing Principles | | 3 |
| MKTG 310 | Marketing Research | | 3 |
| MKTG 312 | Marketing Analytics | | 3 |
| | | Total Units | 9 |

Marketing Analytics Concentration Courses

Choose three (3) courses of the following for 9 units:

| | | | |
|----------|--|--------------------|----------|
| MKTG 420 | Product, Service, and Brand Management | | 3 |
| MKTG 427 | Digital Marketing and Social Media | | 3 |
| MKTG 432 | Marketing for New Ventures | | 3 |
| MKTG 434 | Social and Digital Media Analytics | | 3 |
| MKTG 435 | Consumer Analytics | | 3 |
| MKTG 436 | Marketing Data Visualization | | 3 |
| MKTG 437 | Mobile Marketing and AI | | 3 |
| | | Total Units | 9 |

ADDITIONAL COURSE(S) to MEET 60 UNITS

These courses may be additional major courses or prerequisites taken at the Community College.

| | GE/Overlay | Units |
|---------------|---------------------|-----------|
| Free Elective | | 3 |
| | Total Units | 3 |
| | Grand Total: | 60 |

Computer Science ADT to BS - Computer Science

| FIRST SEMESTER (FALL) | | | |
|---------------------------------|----------|---|----|
| UWR | | University Writing Requirement | 3 |
| UD Major | BAN 310 | Data Analysis with Python I | 3 |
| UD Major | BAN 315 | Data Analysis with Python II | 3 |
| UD Major | MKTG 305 | Business Communication | 3 |
| UD-D/Overlay | | | 3 |
| | | Total: | 15 |
| SECOND SEMESTER (SPRING) | | | |
| UD-B/S/UD Major | BAN 320 | Optimization and Simulation | 3 |
| UD Major | BAN 331 | Database Management and SQL | 3 |
| UD Major | BAN 340 | Machine Learning for Business Applications | 3 |
| UD Major | BAN 350 | Data Wrangling and Data Pipeline | 3 |
| UD Major | MKTG 300 | Marketing Principles | 3 |
| | | Total : | 15 |
| THIRD SEMESTER (FALL) | | | |
| UD Major | MKTG 310 | Marketing Research | 3 |
| UD Major | MKTG 312 | Marketing Analytics | 3 |
| UD Major/SJ | BAN 441 | Business Data Visualization and Reporting | 3 |
| UD Major | BAN 449 | Big Data Technology and Business Applications | 3 |
| UD Major | | Concentration Elective | 3 |
| | | Total: | 15 |
| FOURTH SEMESTER (SPRING) | | | |
| Free Elective | | | 3 |
| UD Major | BAN 499 | Capstone Seminar | 3 |
| UD Major | | Concentration Elective | 3 |
| UD Major | | Concentration Elective | 3 |
| | | Total: | 15 |
| | | Grand Total: | 60 |
| Updated: 4/1/2024 | | | |