

Northwestern Polytechnic University (NPU) & Mission College

| NPU Bachelor of Science in Computer Science (BSCS) | | | | | |
|--|---|---|--|---------------------------------|-----------------------|
| NPU Degree Requirements | Required NPU course or course category | Specific Mission College Course(s) (2020 – 2021 Catalog) | CSU GE Breadth ¹ equivalent | C-ID ² equivalent | |
| General Education Requirements (40 semester Units) | English & Communications (12 semester credits) | ENGL 101 Expository Writing | ENG 001A English Composition or ENG 001AX English Composition with Additional Support | A2/A3 | ENGL 100/ ENGL 110 |
| | | ENGL 115 Public Speaking | COM 001 Public Speaking or COM 001H Public Speaking – Honors | A1 | COMM 110 |
| | | ENGL 425 Modern American Literature | ENG 007B American Literature 1865 to Present | C2 | ENGL 135 |
| | | 3 additional credits in area | Any course with a CSU GE A1, A2 and/or A3 designator | A1/A2/A3 | n/a |
| | Humanities (6 semester credits) | 6 credits in area | Any course with a CSU GE C1 and/or C2 designator | C1/C2 | n/a |
| | Mathematics and Natural Sciences (16 semester credits in BSCS) | MATH 201 Calculus I | MAT 003A Analytic Geometry & Calculus I or MAT 003AH Analytic Geometry & Calculus I Honors | n/a | MATH 210 |
| | | MATH 202 Calculus II | MAT 003B Analytic Geometry & Calculus II | n/a | MATH 220 |
| | | MATH 203 Linear Algebra | MAT 004C Linear Algebra | n/a | MATH 250 |
| | | MATH 208 Probability and Statistics | MAT 010 Elementary Statistics or MAT 010H Elementary Statistics Honors | n/a | MATH 110 |
| | | PHYS 201/201L Physics I with Lab | PHY 004A Engineering Physics-Mechanics, or A course with a CSU GE Breadth designator B1 or B2 (with B3 for lab) that earned at least 4 semester units | B1, B3 | PHYS 205 |

¹ Courses without a CSU GE Breadth Designator will be evaluated individually

² Courses without a C-ID designator will be evaluated individually

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|--|---|--|-----|----------|
| Social Sciences (6 semester credits) | 6 credits in area | 6 semester credits Any course(s) with CSU GE Breadth Area D | D | n/a |
| Major Course Requirements (65 credits BSCS) | | | | |
| Core Course Requirements (50 units BSCS) | CE305 Computer Organization | CIS 039 Introduction to Computer Systems | n/a | COMP 142 |
| | CS 200 Discrete Logic | MAT 019 Discrete Mathematics | n/a | COMP 152 |
| | CS230/230L Linux & Shell Scripting/Lab | CIS 045 Linux Essentials I and CIS 046 Linux Essentials II | n/a | n/a |
| | CS250/250L Introduction to Programming/Lab | CIS 007 Python Programming | n/a | n/a |
| | CS350/350L Data Structures/Lab | CIS 044 Introduction to Data Structures Using Java | n/a | COMP 132 |
| | CS360/360L Programming in C and C++/Lab | CIS 040 C++ Programming | n/a | COMP 122 |
| | CS457/457L Data Modeling & Implementation Tech/Database Technologies Lab | CIS 055 Database Management Systems I and CIS 056 Database Management Systems II | n/a | n/a |
| | CS480/480L Java and Internet Applications/Java Programming Lab | CIS 043 Software Development with Java | n/a | n/a |
| | P450 Career Development | COU 012A Careers & Lifestyles or COU 012C Careers & Lifestyles | n/a | n/a |
| | All other major course requirements not listed above (19 units) | No equivalent courses | n/a | n/a |
| | CE450 Fundamentals of Embedded Engineering | CIS 033 Robotics & Embedded | n/a | n/a |

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| Specialization Course Requirement (15 units BSCS) | CS470 Network Engineering and Management | CIT 012 Introduction to Networking | n/a | n/a |
| | CS 477 Ethical Hacking & Penetration Testing | CIT 016 Cybersecurity & Ethical Hacking | n/a | n/a |
| | CS485 JavaScript & Internet Programing | CIS 088 Advanced JavaScript For Web Developers <u>or</u> GDS 089 JavaScript 1 | n/a | n/a |
| | Complete one additional Specialization Course not listed (3 units) | No equivalent courses | n/a | n/a |
| Electives | 15 semester credits in area | 15 semester credits Any course identified as transferable to CSU or UC. | n/a | n/a |

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| NPU Bachelor's in Business Administration & Information Sciences (BBAIS) | | | | | |
|--|---|--|---|------------------------------|----------------------|
| NPU Degree Requirements | Required NPU course or course category | Specific College of Mission College Course(s) (2020 – 2021 Catalog) | CSU GE Breadth ¹ equivalent | C-ID ² equivalent | |
| General Education Requirements (36 semester Units) | English & Communications (12 semester credits) | ENGL 101 Expository Writing | ENG 001A English Composition <u>or</u> ENG 001AX English Composition with Additional Support | A2/A3 | ENGL 100/ ENGL110 |
| | | ENGL 115 Public Speaking | COM 001 Public Speaking <u>or</u> COM 001H Public Speaking – Honors | A1 | COMM 110 |
| | | ENGL 425 Modern American Literature | ENG 007B American Literature 1865 to Present | C2 | ENGL 135 |
| | | 3 additional credits in area | Any course with a CSU GE A1, A2 and/or A3 designator | A1/A2/A3 | n/a |
| | Humanities (6 semester credits) | 6 credits in area | Any course with a CSU GE C1 and/or C2 designator | C1/C2 | n/a |
| | Mathematics and Natural Sciences (9 semester credits in BBAIS) | MATH 208 Probability and Statistics | MAT 010 Elementary Statistics <u>or</u> MAT 010H Elementary Statistics Honors | n/a | MATH 110 |
| | | PHYS 101 Introduction to Physical Sciences | PHY 002A General Physics- Mechanics & Thermodynamics, <u>or</u> transfer courses acceptable in lieu of: Physical Sciences or Biological Sciences (CSU areas B1, B2 or IGETC areas 5A, 5B) | B1, B2 | n/a |
| | | 3 additional credits in area | Any course with a CSU GE Breadth designator B1, B2, B3, and/or B4 | B1/B2/B3/ B4 | n/a |
| | Social Sciences (9 semester credits) | 9 credits in area | 9 semester credits Any course(s) with CSU GE Breadth Area D | D | n/a |

¹ Courses without a CSU GE Breadth Designator will be evaluated individually

² Courses without a C-ID designator will be evaluated individually

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| Major Course Requirements (60 credits BBAIS) | | | | |
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| Core Course Requirements (45 credits BBAIS) | ACC 201 Principles of Accounting I | ACC 001A Financial Accounting <u>or</u> ACC 022 Basic Accounting Principles & Procedures | n/a | ACCT 110 |
| | BAN199 Excel for Finance, Accounting & Analytics | CAP 063B Intermediate Microsoft Excel <u>or</u> (ACC 033 Forecasting Financial Statements using Excel <u>and</u> ACC 034 Business Financial Planning Using Excel) | n/a | n/a |
| | BLAW310 Introduction to Business Law | BUS 028A Business Law I | n/a | BUS 125 |
| | ECON 201 Macroeconomics | ECN 001A Principles of Macroeconomics | n/a | ECON 202 |
| | ECON 202 Microeconomics | ECN 001B Principles of Microeconomics | n/a | ECON 201 |
| | FIN 310 Fundamentals of Finance | BUS 052 Fundamentals of Financial Investing | n/a | n/a |
| | IT221 HTML & CSS Web Page Construction | GDS 045 Web Design & Development 1 <u>or</u> GDS 046 Web Design & Development 2 <u>or</u> GDS 051 Mobile Application & Web Development with Web Standards | n/a | n/a |
| | MGT 450 Organizational Behavior and Management | BUS 102 Leadership | n/a | n/a |
| | MGT 451 Agile Project Management | BUS 037 Fundamentals of Project Management <u>or</u> BUS 038 Applied Project Management | n/a | n/a |
| | MGT 460 Production & Operations Management | BUS 115 Operations Management | n/a | n/a |
| | MGT 480 Entrepreneurship | BUS 112 Business Modeling | n/a | n/a |
| | MKT310 Principles of Marketing | BUS 056A Marketing Principles | n/a | n/a |
| | P450 Career Development | COU 012A Careers & Lifestyles <u>or</u> COU 012C Careers & Lifestyles | n/a | n/a |
| | All other major course requirements not listed above (9 units) | No equivalent courses | n/a | n/a |

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|---|--|--|-----|----------|
| Specialization Course Requirement (15 units BSCS) | ACC202 Principles of Accounting II | ACC 001B Managerial Accounting | n/a | ACCT 120 |
| | ACC490 Introduction to Taxation | ACC 051A Taxation of Individuals | n/a | n/a |
| | BAN460 Introduction to Business Analytics | BUS 041 Beginning Business Analytics | n/a | n/a |
| | IT223 SQL & Relational Databases | CIS 055 Database Management <u>or</u> CIS 056 Database Management Systems II | n/a | ITIS 180 |
| | IT335 Python Introduction for Commerce | CIS 007 PYTHON PROGRAMMING <u>or</u> CIS 048 Advanced Python Programming | n/a | ITIS 180 |
| | IT337 JavaScript | CIS 088 Advanced JavaScript For Web Developers <u>or</u> GDS 089 JavaScript 1 | n/a | n/a |
| | IT461 Interaction Design (IxD) | GDS 076 Emerging Trends in Interaction Design | | |
| | Complete Five Specialization Courses from above (15 units) | Equivalent Courses Above | n/a | n/a |
| Electives | 24 semester credits in area | 24 semester credits Any course identified as transferable to CSU or UC. | n/a | n/a |