

Cleveland State University

Bachelor of Science in Data Science and Health Sciences

Cleveland State University

Washkewicz College of Engineering and College of Health

Bachelor of Science in Data Science and Health Sciences (Effective Spring 2026)

First Year

| Fall Semester | Credits | Grade | CC | Spring Semester | Credits | Grade | CC |
|--|----------|-------|-----|---|---------|-------|---------|
| HSC 200 - Intro to Health Sciences | 3 | | | COH 102 Writing in Health Professions | 3 | | RPW |
| MTH 181 Calc I OR MTH 148 - Business Calc I | 4 or 3 | | FQR | MTH 182 Calculus II OR MTH 149 - Business Calc II | 4 | | DDL/FQR |
| CIS 151 Invitation to Computing | 3 | | | STA 323 Statistical Methods | 3 | | |
| ENG 100 Intensive Writing or ENG 101 College Writing I | 3 | | FYV | CIS 260 Introduction to Programming | 4 | | |
| INQ 150 Healthy Lifestyle Choices (Recommended) | 3 | | IL | HSC 205 Social and Cultural Determinants of Health | 3 | | CPS |
| Semester Total | 15 or 16 | | | Semester Total | 17 | | |

Second Year

| Fall Semester | Credits | Grade | CC | Spring Semester | Credits | Grade | CC |
|--|---------|-------|--------|-------------------------------------|---------|-------|-----|
| CIS 265 Data Structures & Algorithms | 4 | | | CIS 390 Intro to Algorithms | 3 | | |
| HCA 150 Intro to Healthcare Mgmt | 3 | | | STA 347 Applied Statistics | 3 | | |
| DSA 230 Introduction to Data Science I | 3 | | | HED 360 Health Prom. In the Workpl | 3 | | |
| MTH 220 Intro to Discrete Mathematics | 3 | | | Society and Human Behavior Elective | 3 | | SHB |
| BIO 266/267 Human Anatomy/Lab I | 4 | | SI/SIL | Science Inquiry (CC) | 3 | | SI |
| | | | | HSC 203 Medical Terminology | 1 | | |
| Semester Total | 17 | | | Semester Total | 16 | | |

Third Year

| Fall Semester | Credits | Grade | CC | Spring Semester | Credits | Grade | CC |
|---|---------|-------|-----|---|---------|-------|-----|
| CIS 430 Database Concepts | 3 | | | STA 400 Data Visualization | 3 | | |
| American Civic Literacy Elective | 3 | | ACL | CIS 467 Artificial Intelligence | 3 | | |
| STA 431 Categorical Data Analysis | 3 | | | DSA 460 Data Mining | 3 | | |
| DSA 330 Introduction to Data Science II | 3 | | WAC | Global Human Perspectives Elective | 3 | | GHP |
| PHL 216 AI & Data Ethics | 3 | | HCC | General Elective OR IST 305 - Info Tech for Competitive Advantage | 3 | | |
| Semester Total | 15 | | | Semester Total | 15 | | |

Fourth Year

| Fall Semester | Credits | Grade | CC | Spring Semester | Credits | Grade | CC |
|-------------------------------------|---------|-------|----|---------------------------|---------|-------|-----|
| DSA 469 Big Data Processing Systems | 3 | | | DSA 492 - Capstone Course | 3 | | CAP |
| HCA 301 American Health Care System | 3 | | | General Elective | 3 | | |
| General Elective | 2 or 3 | | | HED 472 Consumer Health | 3 | | |

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|---|---|----------|-----|---|---|----|--|
| HSC 410 Evidenced Based Practice | 3 | | WAC | HCA 420 - Management of Health Care Organizations | 3 | | |
| General Elective (OR) IST 352 Health Information Technology Application / IST 452 Managing Healthcare Information Tehnology | 3 | | | HSC 499 Exit Evaluation | 0 | | |
| Semester Total | | 14 or 15 | | Semester Total | | 12 | |
| Degree Total Credit Hours: 121-123 | | | | | | | |

| Core Curriculum (CC) Key + Notes | |
|---|---|
| IL = Inquiry Launch | SHB = Society and Human Behavior |
| FYV = Finding Your Voice (required C or better) | ACL = American Civic Literacy |
| RPW = Research and Professional Writing (required C or be | CPS = Complexities of Pluralistic Society |
| FRQ = Formal and Quantitative (two courses required, each | GHP= Global Human Perspectives |
| SI = Scientific Inquiry | WAC = Writing Across the Curriculum |
| SIL = Scientific Investigation Lab | CAP = Capstone Requirement |
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