Master of Science (M.S.)

**Health Informatics and Bioinformatics**

**Bioinformatics Concentration (Winter Start)**

**2024 – 2025**

**Catalog Year**

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**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ G Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **1st Year** | | | |
| **Winter**  CIS 660: Data Engineering  PSM 650: Ethics & Professionalism in Applied Science  CMB 610: Foundations of Biotechnology  **Total** | 3  3  3  **9** | **Fall**  CIS 635: Knowledge Discovery and Data Mining  CIS 661: Introduction to Health and Bioinformatics  STA 610: Applied Statistics for Health Professions  **or** STA 622: Statistical Methods for Biologists  **Total** | 3  3  3  **9** |
| **2nd Year** | | | |
| **Winter**  CIS 671: Information Visualization  CIS 677: High-Performance Computing  CIS 691: Medical and Bioinformatics Capstone  **Total** | 3  3  3  **9** | **Fall**  PSM 662: Seminar in Professional Science Practice  PSM 691: Internship  CIS 678: Machine Learning  **Total** | 2  4  3  **9** |

* This is a suggested curriculum guide that might not be applicable to every student.
* Students must have 36 credits to graduate, with a minimum of 24 credits taken at GVSU.
* Students must maintain a 3.0 GPA to graduate.

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| **Admission Requirements** |
| **Grade point average of 3.0** from undergraduate work **OR** satisfactory **GRE/GMAT** score |
| **Resume** detailing work experiences and accomplishments |
| **Personal statement** of career goals and background experiences, including an explanation of how this program will help achieve educational and professional objectives. |
| **Recommendations**: Two professional or academic recommendations received online, addressing the candidate’s potential for graduate study completion. You will provide the emails of two references in your account at www.gvsu.edu/gradapply, and they will be sent a link to fill out their online recommendation. |
| **CIS 500** (or a **programming** **language** knowledge) |
| **STA 610** (or **applied statistics** knowledge) |