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| REQUIREMENTS | CONT’D REQ/COURSE AVAILABILITY |
| **Admission Requirements**In addition to the requirements listed in the Graduate Admission section, candidates must satisfy all of the following:1. **Grade point average of 3.0** (B) from all undergraduate coursework or a satisfactory score on the GRE or GMAT test.2. **Resume** detailing work experiences and accomplishments.3. **Personal statement** of career goals and background experiences, including an explanation of how this program will help achieve educational and professional objectives.4. **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, and they will be sent a link to fill out their online recommendation.5. Candidates must possess knowledge of a **programming** language equivalent to 2 or 3 undergraduate courses. 6. Candidates must possess a knowledge of **applied statistics**. **Degree Requirements**All candidates must complete 36 credits with a cumulative GPA of 3.0.**Core Requirements (12 credits)*** CIS 661 Introduction to Health and Bioinformatics
* CMB 610 Foundations of Biotechnology
* PSM 650 Ethics and Professionalism in Applied Science

Select One Stats Course: * STA 610 Applied Statistics for Health Professions

**OR*** STA 622 Statistical Methods for Biologists

**Seminar Requirement (2 credits)*** PSM 662 Seminar in Professional Science Practice

**Directed Requirements (15 credits)** * CIS 635 Knowledge Discovery and Data Mining
* CIS 660 Data Engineering
* CIS 671 Information Visualization

*\*Directed requirements continue in the next column with a chosen concentration.* **Internship Requirement (4 credits)*** PSM 691 Internship

**Capstone Requirement (3 credits)*** CIS 691 Medical and Bioinformatics Capstone
 | **Degree Requirements, Concentrations**Students choose between two concentrations to focus their degree.Select either Bioinformatics Concentration:CIS 677 High-Performance Computing **AND**  CIS 678 Machine Learning Or Health Informatics Concentration:CIS 665 Clinical Information Systems **AND** PNH 630 Health Administration and Service **OR**PNH 635 Hospital Organization and Management **Course Availability****Fall or Winter Classes**CIS 635 Knowledge Discovery and Data MiningCIS 660 Data EngineeringCIS 661 Introduction to Health & BioinformaticsCIS 665 Clinical Information SystemsCIS 671 Information VisualizationCIS 677 High-Performance ComputingCIS 678 Machine LearningPNH 630 Health Administration and ServicePSM 650 Ethics and Professionalism in Applied Science PSM 662 Seminar in Professional Science PracticeSTA 610 Applied Statistics for Health Professions**Fall-Only Classes** STA 622 Statistical Methods for Biologists PNH 635 Hospital Organization and Management**Winter-Only Classes** CMB 610 Foundations of Biotechnology  CIS 691 Medical and Bioinformatics Capstone |