Ph.D. in Bioinformatics Degree Requirements

Note: these requirements are for students who began prior to the fall 2012 semester.

Core A (15 cr.)
- INFO 501 Introduction to Informatics (3 cr.)
- INFO 519 Introduction to Bioinformatics (3 cr.)
- INFO 556 Biological Database Management (3 cr.)
- CSCI 548 Algorithms in Bioinformatics (3 cr.)
- INFO 600 Professionalism and Pedagogy in Informatics (3 cr.)

Advanced Core B (12 cr.)
Select four:
- INFO 529 Machine Learning in Bioinformatics (3 cr.)
- INFO 619 Structural Bioinformatics (3 cr.)
- INFO 646 Computational System Biology (3 cr.)
- INFO 656 Translational Bioinformatics Applications (3 cr.)
- GRAD 652/R607 Biostatistics II / Advanced Statistics (3 cr.)

Seminar Courses (6 cr.)
- INFO 627 Advanced Seminar I – Bioinformatics (3 cr.)
- INFO 637 Advanced Seminar II – Bioinformatics (3 cr.)

Independent Study/Rotation (6 cr.)
May be taken twice
- INFO 790 Independent Study/Rotation (3 cr.)
Electives

No minimum or maximum credits
You may take other electives (subject to approval) at the graduate level as needed for your specific research.

Minor (minimum 12 cr.)
You must complete a minor within a domain appropriate to your choice of specialization and/or research area. All courses must be graduate-level and outside the School of Informatics and Computing.

Qualifying Examinations

1. **Written Exam** – You must successfully complete a written qualifying examination by the end of the program’s second year. The exam is established by faculty and covers subject matter taken in the program’s core courses. The exam may be retaken once.

2. **Oral Exam** – An oral examination takes place within weeks after successful completion of the written exam. You must pass both the written and oral exam before passing on to Ph.D. candidacy. The oral exam is based on the student’s response to the written exam and core course material. The exam may be retaken once.

Dissertation

A dissertation is a written elaboration of original research that makes creative contributions to your chosen area of specialization. Students will enroll multiple times in INFO 890 Thesis Readings and Research (1-12 cr.) as you work to complete your dissertation. All requirements must be completed within seven years of passing the qualifying exams. The dissertation process includes the following components:

1. **Proposal** – This is an in-depth oral review undertaken by students who have made significant process in their research. The proposal will be defended at a public colloquium. You must complete the proposal within one year of passing the qualifying exams.
2. **Defense** – You must defend your dissertation in an open seminar scheduled when doctoral research is almost complete.