

# Genomics, Phenomics, and Bioinformatics

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## Department Information

- **Program Director:**  
Changhui Yan, Ph.D.
- **Email:**  
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- **Department Web Site:**  
[www.ndsu.edu/gpb/](http://www.ndsu.edu/gpb/) (<http://www.ndsu.edu/gpb/>)
- **Application Deadline:**  
International applications are due May 1 for fall semester and October 1 for spring and summer semesters. Domestic applicants should apply at least one month prior to the start of classes.
- **Credential Offered:**  
Ph.D., M.S.
- **English Proficiency Requirements:**  
TOEFL iBT 71, IELTS 6; Duolingo 105

It is the intent of the program to admit students into one of three tracks. The Functional Genomics track will be for students interested in the generation and application of genomic information. The Bioinformatics track is intended for students interested in using computational and statistical approaches to analyze large amounts of genomic data. The Phenomics track will be attractive to students interested in the application of high-throughput equipment to measure important traits necessary for full expression of the traits necessary for the organism to productively complete its life cycle.

The program is open to qualified graduates of universities of recognized standing. The Graduate School minimum for the TOEFL examination applies. In addition, the following are the requirements to be admitted with full standing.

Functional Genomics track: a Bachelor of Science (B.S.) degree with an introductory biology class emphasizing molecular biology; with courses in genetics, physiology, biochemistry; an upper-division statistics class. A minimum undergraduate GPA of 3.0.

Bioinformatics and Phenomics tracks: a B.S. degree with an introductory biology class emphasizing molecular biology; with courses in calculus, upper-division statistics class, calculus or matrix algebra, and programming language experience. A minimum undergraduate GPA of 3.0.

Students can be accepted conditionally into any track without meeting the course or GPA requirements, but will be required to meet those requirements while in residency.