Requirements:

It requires permission of the Department of Computer Science, so students will need to receive a special permission number from the department. Please call 701-777-4107 and speak to either Kelsey or Nancy.

Course Description:

Bioinformatics is an emerging interdisciplinary area that integrates information technology and statistical/mathematical methods for acquiring, processing, analyzing, storing and disseminating the biological big data. The explosively growing volume of genomic data presents major challenges for both computation and statistical modeling. This course will introduce the basic ideas and strategies of designing experiments and analyzing genomic data, such as microarray and next-generation sequencing data. It will discuss the applications of data mining methods and high-performance computing to bioinformatics. All bioinformatics problems discussed in this course come from real research projects and students will gain hand-on experience in bioinformatics research.

CSCI 501. Bioinformatics: Techniques & Applications
Summer 2014

- Semester: Summer 2014
- Credit hours: 3
- Dates: June 9 — August 8
- Time/Date: MW 10am-12pm; F 11am-12pm
- Classroom: SMHS B320B
- Professor: Kurt Zhang
- Email: ke.zhang@med.und.edu