



Student Learning Outcomes

College: Computing and Informatics

Department: Computer Science

Degree Program: PhD in Computing and Information Systems

- 1) Students will be able to demonstrate the following ranges of knowledge with respect to the tracks they are enrolled:
 - **BI:** Fundamental knowledge in: Molecular Sequence Analysis, Structural Bioinformatics, Applied Statistics and Functional Genomics
 - **CS:** Fundamental Knowledge (including one or two of the following: Algorithm Design and Implementation, Computer Architecture, Operating Systems or Compiler, Software Engineering), Domain Specific Knowledge (including one or two of the following: Intelligent Systems, Networking Systems, Graphics and Visualization, Computer Vision and Image Processing, Database and Mining, Robotics)
 - **SIS:** Fundamental knowledge in the following areas: Software/Information Systems Analysis, Design, Implementation, and Testing; System Vulnerability Analysis and Security Enforcement; Design of Human-Computer Interfaces; Principles and Structure of Complex Systems; Server and Client Side Software Design.
 - **BISOM:** Fundamental knowledge in the following areas: Data and Knowledge Management, Systems Analysis and Design, Information Systems Economics and Strategy, Data Communications Concepts, Empirical Research Methods, Modeling Research Methods, current literature in Information Systems.
- 2) Students will be able to demonstrate independent research skills and written communication skills.
- 3) Students will be able to demonstrate effective oral communication skills.