Informatics

About the Major

This Bachelor of Science program prepares students to work in exciting interdisciplinary applications areas, combining expertise in computing and data analysis, consisting of computer science, programming, software engineering, statistics, and mathematics expertise, with in-depth study in a natural science emphasis area, including biology, ecology, and astronomy. Graduates with this degree are qualified to work in a variety of industry, government, and academic organizations working in informatics.

Major Emphasis Options

- Astroinformatics
- Bioinformatics
- Ecoinformatics

Marketable Skills and Abilities this Major Develops

- System requirements and selection
- Design and development
- Problem analysis and evaluation
- Ability to communicate complex information clearly and accurately
- Familiarity with programming languages
- Analytical and critical thinking skills
- Understand operating system's configuration and implementation

Relevant Fields

- Software Development
- Data Mining
- Product Management
- Cybersecurity
- Health Informatics
- User Experience Design
- Computer Science
- Information Architecture

Occupational Titles/Careers with Bachelor's Degree

- IT Consultant
- Associate Software Engineer
- Solutions Architect
- System Programming Analyst
- Database Developer/Manager
- Digital Library Specialist
- Network Security Admin

Sample Coursework

- Software Engineering
- Calculus & Discrete Mathematics
- Data Structures
- Database Systems
- Operating Systems
- Research and Design

Career Opportunities and Job Outlook

Employment of computer and information technology occupations is projected to grow 13% from 2016 to 2026, faster than the average for all occupations. These occupations are projected to add about 546,100 new jobs. Demand will stem from greater emphasis on cloud computing, the collection and storage of big data, and information security.

Salary Estimates

According to IUPUI, the average starting salary of informatics undergraduates is $47,000, and the median salary was $56,000. In 2019, the median annual salary for web developers was $73,760; $90,920 for computer systems analysts; and over $100,000 for software developers. Nationally, the median annual salary for all computer and information technology occupations was $88,240. (This section is intended for informational purposes, not prediction of actual salary.)

Advanced Degrees

- Bioinformatics
- Health Informatics
- Computer Engineering
- Business Informatics
- Cybersecurity
- Human Computer Interaction

Professional Associations

- [Association for Information Technology Professionals](#)
- [CompTIA](#)
- [National Workforce Center for Emerging Technologies](#)
- [Institution of Engineering and Technology](#)
- [Association for Computing Machinery](#)
- [Data Management International](#)