Informatics

FROM STUDY TO SKILLS

All academic programs offered at the UM help students develop valuable transferable skills. So why study informatics? In today's data-driven society, informatics is everywhere. Examples include designing a secure system for medical records to be available to multiple health care providers, analyzing and visualizing massive data sets from a prescription drug trial, and designing and evaluating an online marketing campaign. Even a literary scholar studying attitudes towards the Enlightenment in 18th Century England may use informatics.

Informatics is an interdisciplinary program housed in LSA in an innovative partnership with College of Engineering and the School of Information. The field combines a solid grounding in computer programming, mathematics, and statistics with study of the ethical and social science aspects of complex information systems. As an Informatics concentrator, you will study the ways information is used and its effects on people and social systems. You will become more aware of the relationship between information and individuals and the ethical issues inherent in today's information systems, and will develop strong quantitative and problem solving skills.

Related fields include Statistics, Mathematics, Computer Science, Information Science, Survey Research/Survey Methodology, Engineering, Sociology, Psychology, Economics, Business, Communication Studies, Biology, Medicine, Public Health, Public Policy, and Law.

SKILLS AND ABILITIES

Computational Skills

Computer modeling

Numerical simulation

Analyzing statistics

Program design

Applying quantitative analysis

Maintaining precision and accuracy

Quantitative Skills

Programming

Mathematical modeling and analysis

Designing questionnaires

Developing sample forms

Operating computer simulations

Applying statistical packages

Interpreting data from tables/ charts

Analytical/ Problem-Solving Skills

Applying methods to problems

Projecting from data

Reasoning critically

Categorizing data

Developing theories

Designing systems for processing data

Modeling complex systems

Recognizing types of problems

Perceiving patterns and structures

Identifying relationships between problems/ solutions

Presentation/ Communication Skills

Communicating abstract concepts

Transitioning between written text and computations/ formulas

Describing processes in non-technical terms

Explaining theories/ideas

Summarizing findings

Informing/instructing

Contributing to teams

BUILDING YOUR SKILLS OUTSIDE THE CLASSROOM

Employers seek out individuals who can demonstrate excellent verbal and written communication skills, teamwork and interpersonal skills, initiative, and a strong work ethic. Student organizations, research with Informatics faculty members, and campus employment offer valuable opportunities to add to the skills you are developing in your classes. The Informatics Student Organization hosts events throughout the year. Other options include study abroad, off-campus employment or volunteering in the community. Finally, a summer internship may be the best way of all to test out a career field and develop marketable skills.

FROM SKILLS TO CAREER

Informatics concentrators develop both general and technical skills applicable to a wide range of careers in business, research, health care, government, and non-profit organizations. For example, strong quantitative skills may be equally useful whether working as a web analyst or an online community manager. In addition, informatics concentrators may choose to continue their education in graduate or professional school.

Our graduates are in high demand and often receive multiple job offers. The list below is a sample of careers undertaken by Informatics graduates.

Computational Skills
Application developer/engineer

Software architect/developer/engineer

Systems engineer

Database developer/engineer

Web analyst

Quantitative Skills
Algorithm engineer

Data center engineer

Data mining specialist

Competitive intelligence analyst

Marketing research analyst

Analytical/Problem-Solving Skills
Business analytics consultant

Systems analyst, health informatics

Clinical informatics analyst

Data analysis consultant

Data/information analyst

Performance analyst

Presentation/Communication Skills
Product coordinator/manager

Management consultant

Online community manager

User experience analyst

Usability specialist

For more career information, see O*Net at
online.onetcenter.org

CONCENTRATION REQUIREMENTS

The concentration requires four prerequisite courses (Math 115, EECS 182, Stats 250, and SI/SOC 110) and 4 core courses (EECS 203 and 282, Stats 403, and SI 410) along with 28 credits of track and elective courses. As an Informatics concentrator, you may choose between four tracks of study: Computational Informatics, Data Mining and Information Analysis, Life Science Informatics, and Social Computing. For more information about requirements and electives for each tracks, contact the Informatics Program Coordinator or visit the website below.

Program in Informatics
439 West Hall
734-615-3789
lsa.umich.edu/informatics
facebook.com/pages/University-of-Michigan-Informatics/24659164952

Newnan Advising Center
1255 Angell Hall
734-764-0332
lsa.umich.edu/advising

NEXT STEPS/RESOURCES

For more information about careers in Informatics, including graduate study, see:
lsa.umich.edu/informatics/about/careersgraduatestudy

To begin connecting to professionals in fields that interest you, create your own LinkedIn account:
careercenter.umich.edu/article/getting-started-linkedin

To identify internships or job opportunities, visit Career Center Connector: *careercenter.umich.edu/article/c3*

On-campus jobs (work-study and non work-study jobs) are listed at:
studentemployment.umich.edu/JobX_Home.aspx

Maize Pages list hundreds of organizations for students to get involved in: *maizepages.umich.edu*

Connect to Community lists volunteer opportunities in local organizations: *connect2community.umich.edu*

The Career Center
3200 Student Activities Building
734-764-7460
careercenter.umich.edu
facebook.com/careercenter.umich
twitter.com/careercenter
linkedin.com/company/the-career-center-at-the-university-of-michigan