## INFORMATION SCIENCES

### What can I do with this major?

<table>
<thead>
<tr>
<th>AREAS</th>
<th>EMPLOYERS</th>
<th>INFORMATION/STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INFORMATION ORGANIZATION</strong></td>
<td>Government agencies</td>
<td>Organize and catalog massive amounts of data for organizations using specialized software.</td>
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<tr>
<td>Cataloging/Taxonomy</td>
<td>Research centers</td>
<td>Create efficient ways to organize, store and access data.</td>
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<tr>
<td>Indexing</td>
<td>Healthcare and pharmaceutical firms</td>
<td>Supports data access, retrieval, and preservation.</td>
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<tr>
<td>Information architecture</td>
<td>Engineering and bio-engineering firms</td>
<td>Learn basic computer science skills by taking a course on campus or online.</td>
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<td>Metadata librarian</td>
<td>Hospitals</td>
<td>Become familiar within database software.</td>
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<td>Special collections librarian</td>
<td>Media or advertising agencies</td>
<td>Stay informed with technological advances and be able to adapt to new technologies.</td>
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<td>Technical information specialist</td>
<td>Educational services</td>
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<td>Database administration</td>
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<td>Digital archivist</td>
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<tr>
<td>Document analysis</td>
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| **DATA SCIENCE** | Research centers | Enables companies to turn numbers into information and strategic insights. |
| Big data management | Large corporations | Supports data access, retrieval, and preservation. |
| Business intelligence | Government agencies | Cleaning raw data and creating easily understandable visual presentations. |
| Data analysis | National laboratories | Expertise in an industry or subject area may be helpful. |
| Data preservation | Academic research centers | Become familiar within database software and statistical analysis software. |
| Data extracting | Healthcare research centers | Supplement undergraduate curriculum with courses in business to gain an understanding of marketing principles. |
| Donor/Prospect research | Special libraries | Stay informed with technological advances and be able to adapt to new technologies. |
| Competitive intelligence | |
| Online retrieval | |
| Digital curation | |
| Geographic information | |
| Research services | |
| Risk management/Assessment | |
| Science information | |
### INFORMATION/STRATEGIES

**Areas**

**Information System/Technology**
- Information security
- Consulting
- Information architecture
- IT administration
- IT analysis
- IT training
- Network administration
- Programming
- Software design
- Systems analysis
- Technical support network
- Web development/Maintenance

**Employers**
- Libraries (public, academic, and special)
- Data processing centers
- Corporations
- Software and computer companies
- Financial firms
- Manufacturing firms
- Research centers
- Government
- Universities
- Consulting firms

**Information/Strategies**
- Analyze technology needs for organizations, recommend and maintain new technology.
- Ensure security of network and information.
- Build a strong computer background in programming skills using several languages, various operating systems, database management, software and networks.
- Increase employment opportunities through product-related certification or by earning Certified Computing Professional (CCP) status conferred by the Institute for Certification of Computing Professionals. CCPs must pass an examination and meet various requirements.
- Gain related experience through internships, co-ops, or part-time employment.
- Develop excellent analytical, decision-making, and written and oral communication skills.
- Learn to work well with both technical and non-technical staff.

**Special Libraries & Information Centers**

**Areas**
- Antiquarian books
- Business intelligence
- Copyright and intellectual property
- Data management
- Data quality engineering
- Digital curation
- Digital preservation
- Document design
- Grant research/writing
- Indexing/Abstracting Information architecture
- Information management
- Knowledge management
- Records management/Archives
- Strategic information
- Visual resources

**Employers**
- Large hospitals
- Medical schools
- Law firms
- Law schools
- Large corporations
- Industrial and scientific collections
- Research labs
- Local, state, and federal government agencies
- Nonprofit organizations
- Colleges and universities
- Museums and art institutions
- Historical societies
- Publishing houses
- News organizations and electronic media
- Picture services
- Motion picture studios
- Television stations
- Trade and professional associations

**Information/Strategies**
- Special collections librarians generally have interests, skills, and knowledge related to the collection and may work with a particular population in special libraries (e.g., lawyers or doctors).
- Most positions require a bachelor's degree in a field related to the collection topic (e.g., business, science, art, etc.). Some require a graduate degree in the field.
- Many law librarians have a Juris Doctor (law degree).
- Knowledge of foreign languages may be required in certain fields.
- Develop skills in research and a solid background in information technologies.
- Earn a master's degree in library or information science from an ALA accredited program.
### ELECTRONIC PUBLISHING
- Design, formatting and editing
- Digital library development
- Manuscript preparation
- Electronic content manager
- Intellectual property analyst
- Digital acquisitions coordinator
- Copyright specialist
- Technical writing

**Areas:**
- Database producers
- Distributors of electronic publications (e.g., business firms, universities, nonprofit organizations, professional associations, etc.).
- Electronic publishers

**Employers:**
- Electronic publishers or publishing professionals create and distribute publications in electronic form.
- Develop writing skills through classes in English, journalism, or technical writing.
- Learn advanced website design and programming.
- Become fluent in electronic publishing technologies, such as HTML and Adobe Creative Cloud.
- Acquire advanced knowledge of formatting/troubleshooting with electronic templates.

### USER EXPERIENCE
- User research
- Experience design
- Human computer interaction
- Content management
- Usability engineering
- User experience design
- User interface design
- Web design/development
- Information architecture
- Interface design

**Areas:**
- Software and computer companies
- Brand management consultants
- Media corporations
- Government agencies
- Online app development start-ups
- Educational institutions
- Libraries
- Web design firms
- Marketing and advertising agencies

**Employers:**
- User experience professionals typically work to improve design and development of information systems and to measure and evaluate the usability of products and applications.
- Bachelor's degrees focusing on human behavior, psychology, and/or computing, are especially helpful.
- Build a strong background in web design, programming, HTML, research methods, and data analysis.
- Develop excellent computer and communication skills.
- Develop excellent research, writing, and organizational skills.
- Learn to work well with both technical and non-technical staff.
GENERAL INFORMATION AND STRATEGIES

- Information science professionals work in diverse settings such as corporations, consulting firms, government agencies, educational institutions, non-profit organizations, special libraries, and any organization involving information management.
- Qualifications important to the field include the ability to work well with people, good written and oral communication skills, intelligence and curiosity, research and computer skills. An eye for detail, and a general love of learning are also essential.
- Understand trends in media, computers/technology, and knowledge of specific industries is important to success in the profession.
- Become familiar with basic business operations, contract/vendor negotiation, and purchasing.
- The ability to learn and adapt quickly to new technologies is important in this industry.
- Work in campus libraries or IT offices part-time or during the summers to gain experience.
- Supplement undergraduate curriculum with courses in communications, media, business, or technology.
- A master’s degree in computer technology, business, or information science may be required to move into advanced roles.
- Join professional associations such as the Association for Information Science & Technology (ASIS&T), Special Library Association (SLA), Society of American Archivists (SAA).