M.S.I.S.
STUDENT HANDBOOK

College of Emergency Preparedness, Homeland Security and Cybersecurity (CEHC)
University at Albany, State University of New York
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Albany, NY 12203
Phone (518) 442-5258

A copy of this handbook can be found in the Graduate Student Resources folder on the CEHC website at https://www.albany.edu/cehc/programs/resources-students.

Revised January 2020
INFORMATION SCIENCE PROGRAM

The Master of Science in Information Science degree program is one of five post-
undergraduate programs offered by the College of Emergency Preparedness, Homeland
Security and Cybersecurity. Located on the downtown campus of the University at
Albany, the Information Science program is well situated to provide opportunities for
interdisciplinary study. In addition, IS students have ready access to numerous sites for
gaining practical experience through on-campus or off-campus employment, or through
internships in government and cultural institutions, libraries, and commercial
enterprises throughout the Capital Region.

Programs of Study

At the graduate level, the Information Science program offers the Master of Science in
Information Science (M.S.I.S.), a Master of Science in Information Science School
Library (M.S.I.S.), a Certificate in Advanced Study (C.A.S.), and an interdisciplinary
doctoral degree in Information Science (Ph.D.). Three dual-degree programs are
available, which combine an M.A. in either History, Public History, or English with the
M.S.I.S. Two combined Undergraduate/Graduate degree programs are available.

The doctoral program has its own handbook.

CEHC also offers a Certificate of Graduate Study in Emergency Preparedness,
Homeland Security and Cybersecurity. More information on the EHC-CGS can be found
in the graduate bulletin.

Non-degree Study

Students contemplating entering a graduate degree program may begin study on a non-
degree basis. See the next section for more details on applying for non-degree study.
ADMISSION REQUIREMENTS & APPLICATION PROCESS

The admissions process for the M.S.I.S. degree requires submission of official transcripts from all post-secondary institutions attended — a grade-point average of 3.0 (B) is strongly preferred — GRE scores as noted below, three letters of recommendation (academic or professional), and completion of a personal essay. This process is explained in detail on the Graduate Admissions webpage.

All applicants except those who already possess a graduate degree in another field must submit scores on the general portion of the Graduate Record Examination (GRE). A 300 total combined score on the verbal and quantitative sections, and a score of 4.0 or above on the analytical writing section, is required. Prospective students can apply for a GRE waiver based on professional experience, an exceptional academic record, or a combination of both. Students applying to the M.S.I.S - School Library can only waive the GRE with a previous Master’s Degree per NYSED requirements. The application is located in the Graduate Student Resources page on the CEHC website. Students should submit the GRE waiver request to CEHC@albany.edu (ISSL@albany.edu for M.S.I.S.-SL students).

As noted earlier, non-degree study is available to those who have yet to take the GRE, or who have already completed an M.L.S., M.S.I.S., or a related degree and are interested in professional development. Non-degree study is limited to 12 credits of coursework. The application for non-degree study requires official transcripts and a completed application form.
MASTER OF SCIENCE IN INFORMATION SCIENCE DEGREE (M.S.I.S.)

The Master of Science in Information Science is designed to serve two major purposes: 1) to prepare students for employment in corporate and public sector organizations where the generation, management, and use of information is an essential aspect of the organization; and 2) to equip students with the knowledge and skills required for entry into a doctoral program in information science.

The M.S.I.S. is accredited by the American Library Association.

Four general themes are stressed in the curriculum:
- the analysis, evaluation, design, maintenance, and management of information systems;
- the conceptualization and organization of information;
- the application of relevant information technologies; and
- the study of the social, political, economic, and institutional milieu within which information is produced, organized, stored, retrieved, and used.

Typical employers of M.S.I.S. graduates include libraries, corporations, hospitals, academic institutions, human service organizations, government agencies, and archives. The degree is awarded for successful completion of a minimum of 36 credit hours. There are five areas of concentration in the curriculum:

1. **Archives/Records Administration** for students who wish to pursue a career in archives, or as paper or electronic records managers;
2. **Data Analytics** for students who want to pursue a career utilizing the technical facets of Emergency Preparedness, Homeland Security, and Cybersecurity (EHC) blended with information science as risk assessors, performance measurement managers, or web analytics specialists;
3. **Information Management and Technology** for students pursuing careers as information managers or policymakers in corporations, government agencies and nonprofit organizations;
4. **Intelligence Analysis** prepares students pursuing careers in the growing fields of public and private intelligence as research analysts, or intelligence strategy consultants; and
5. **Library and Information Services** prepares students for professional positions in academic, special, or public libraries.

**M.S.I.S. Degree Requirements**

**Required Courses:** (15 credits)
- CIST 601   *The Information Environment* (3)
- CIST 602   *Information and Knowledge Organization* (3)
- CIST 608   *Research Methods* (3)
CIST 614  Administration of Information Agencies (3) (ISSL Students - IST 676)
CIST 678*  Internship (150 hours) (3) (ISSL Students - IST 668; 400 hours, 6 credits)

*This requirement may be fully or partly waived based on recent relevant work experience. A waiver does not relieve the credit requirement.

Concentration Courses as Advised: (6-12 credits)

Supporting Courses as Advised: (9-15 credits)

M.S.I.S. Concentrations
All M.S.I.S. students will complete the general course requirements as well as fulfill the specific concentration requirements as described below.

Archives and Records Administration
Graduates of this concentration gain employment in archives, or as paper or electronic records managers. This specialization concentrates on storing, preserving, and organizing information.

Required Courses:
- CIST 546  Fundamentals of Records Management (3)
- CIST 547  Electronics Records Management (3)
- CIST 656  Archives and Manuscripts (3)

AND

- CIST 660  Archival Representation (3)

OR

- CIST 654  Preservation Management in Archives and Libraries (3)

Students will also take electives in the College of Emergency Preparedness, Homeland Security and Cybersecurity, or the Department of History to support this concentration.

Data Analytics
Graduates of this concentration gain employment in multiple areas, ranging from the health-care industry, business, marketing, or the government. The interdisciplinary specialization concentrates on bridging the gap between information acquisition and actionable knowledge. Students in the Data Analytics track must complete a tool requirement, in addition to the core and required course.

Required Courses:
- CIST 506: Database Systems and Data Analysis (3)
- CIST 624: Predictive Modeling (3)
### MS IS Data Analytics Track

<table>
<thead>
<tr>
<th>Category</th>
<th>Course</th>
<th>Prerequisite</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tool Option</strong></td>
<td><strong>select one</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAD 637</td>
<td><em>Social &amp; Organizational Networks</em></td>
<td>Completion of required statistical courses for the Master's or Ph.D. program; permission of instructor</td>
<td>4</td>
</tr>
<tr>
<td>CSI 532</td>
<td><em>Network Science</em></td>
<td>ICSI131 or ICSI431, and ICSI403 or permission of instructor</td>
<td>3</td>
</tr>
<tr>
<td>IST 529</td>
<td><em>Text Analysis</em></td>
<td>Recommended: prior experience with Python</td>
<td>3</td>
</tr>
<tr>
<td>GOG 596/PLN 556</td>
<td><em>Geographic Information Systems</em></td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>PAD 624 (ITM 624)</td>
<td><em>Business Dynamics: Simulation Modeling for Decision-Making</em></td>
<td>ITM 520, ITM 522, or PAD 504 or consent of the instructor</td>
<td>3</td>
</tr>
<tr>
<td>PAD 504</td>
<td><em>Data Models, and Decisions</em></td>
<td>None</td>
<td>4</td>
</tr>
<tr>
<td><strong>Tool Option</strong></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVES; Choose 12 credits from the list below, with advisement**

<table>
<thead>
<tr>
<th>Category</th>
<th>Course</th>
<th>Prerequisite</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>INF 507 <em>Modern Issues in Databases</em></td>
<td>IST 506</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Prerequisite(s)</td>
<td>Credits</td>
</tr>
<tr>
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</tr>
<tr>
<td>INF 528</td>
<td>Analysis, Visualization, and Prediction in Analytics</td>
<td>Some Statistics and Database Experience</td>
<td>3</td>
</tr>
<tr>
<td>INF 551</td>
<td>Bayesian Data Analysis and Signal Processing</td>
<td>CSI 101 or 201, MAT 214 or equivalents, or permission of instructor</td>
<td>3</td>
</tr>
<tr>
<td>INF 625</td>
<td>Data Mining</td>
<td>IST 506</td>
<td>3</td>
</tr>
<tr>
<td>INF 627</td>
<td>Data Analytics Practicum</td>
<td>INF 624</td>
<td>3</td>
</tr>
<tr>
<td>MAT 554</td>
<td>Introduction to Theory of Statistics</td>
<td>Calculus or Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MAT 558</td>
<td>Methods of Data Analysis I</td>
<td>MAT 554</td>
<td>3</td>
</tr>
<tr>
<td>MAT 559</td>
<td>Methods of Data Analysis II</td>
<td>MAT 558</td>
<td>3</td>
</tr>
<tr>
<td>CSI 531</td>
<td>Data Mining</td>
<td>CSI 503 (Algorithms and Data Structures)</td>
<td>3</td>
</tr>
<tr>
<td>CSI 532</td>
<td>Network Science</td>
<td>ICSI131 or ICSI431, and ICSI403 or permission of instructor</td>
<td>3</td>
</tr>
<tr>
<td>CSI 536</td>
<td>Machine Learning</td>
<td>Basic knowledge of Linear Algebra (AMAT 220 or equivalent), Multivariate calculus (AMAT 214 or equivalent), Discrete probability (AMAT 367 or equivalent), Numerical methods (CSI 401 or equivalent)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives 12**

**Information Management and Technology**

This interdisciplinary specialization concentrates on the political, legal, and economic environment of information and information policy. Graduates of this concentration gain employment as information managers or policymakers in government agencies, corporations, and non-profit organizations.

**Required Courses:**

- CIST 533: Information Storage and Retrieval (3)
- CIST 560: Information and Public Policy (3)
- CIST 565: Human Information Behavior (3)
- CIST 611: Information Systems (3)
Students take electives in the College of Emergency Preparedness, Homeland Security and Cybersecurity, the Department of Public Administration, and the School of Business to support this concentration.

**Intelligence Analysis**

The specialization prepares students to become information analysts with a focus on technology, tools, and skills utilized in the field. Students learn innovative ways to gather and assess information and intelligence data sources in both the private and public sectors. Graduates of this specialization can seek employment as analytic methodologists, business intelligence analysts, policy research statisticians, competitive intelligence strategy consultants, and crime data analysts.

**Required Courses:**
- CEHC 557: *Intelligence Analysis* (4)
- CIST 529: *Text Analysis* (3)
- CIST 667: *Intelligence Analysis Research Seminar* (3; Requires completion of at least 24 Information Science Masters credits, including program core courses)

### MS IS Intelligence Analysis Track

<table>
<thead>
<tr>
<th>Category</th>
<th>Course</th>
<th>Prerequisite</th>
<th>Credits</th>
</tr>
</thead>
</table>
| Tool Options (select one) | PAD 637 *Social & Organizational Networks*  
(Prerequisites: Completion of required statistical courses for the Master's or Ph.D. program; permission of instructor.)  
or  
CSI 532 *Network Science*  
(Prerequisites: ICSI131 or ICSI431, and ICSI403 or permission of instructor.) | listed under course name         | 4       |
|                        | IST 529 *Text Analysis*  
Recommended: prior experience with Python |                                   | 3       |
|                        | GOG 596/PLN 556 *Geographic Information Systems*  
No prereq. If GEOINT Focus an additional GEOINT or Tool course must be completed |                                   | 3       |
<table>
<thead>
<tr>
<th>Category</th>
<th>Course</th>
<th>Prerequisite</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Factors</strong></td>
<td>EHC 628 <em>Leaders and Individual Assessment</em></td>
<td></td>
<td>3</td>
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<tr>
<td></td>
<td>PSY 668 <em>Group Dynamics</em></td>
<td></td>
<td>3</td>
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<tr>
<td></td>
<td>IST 565 <em>Human Information Behavior</em></td>
<td></td>
<td>3</td>
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<tr>
<td></td>
<td>GOG 540 <em>Advanced Political Geography</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>GEOINT</strong></td>
<td>GOG 596/PLN 556 <em>Geographic Information Systems</em></td>
<td></td>
<td>3</td>
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<tr>
<td></td>
<td>GOG 584 <em>Remote Sensing I</em></td>
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<td></td>
<td>GOG 522 <em>GIS for Social Sciences</em></td>
<td>GOG496/PLN456 or equivalent. Students should have some basic GIS and statistical knowledge equivalent to one introductory GIS course and one elementary statistical course.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>GOG 585/PLN 553 <em>Remote Sensing II</em></td>
<td>GOG 584 or equivalent, or consent of instructor.</td>
<td>3</td>
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<tr>
<td></td>
<td>CRJ 693 <em>Geographic Information Systems in Criminal Justice I</em></td>
<td>Permission of Department</td>
<td>4</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Prerequisites</td>
<td>Credits</td>
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<tr>
<td>CRJ 694</td>
<td>Spatial Data Analysis - Criminal Justice</td>
<td>CRJ693 or equivalent or with permission of instructor</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 696</td>
<td>Geographic Information Systems in Criminal Justice II</td>
<td>CRJ693 or equivalent</td>
<td>4</td>
</tr>
<tr>
<td>GOG 593</td>
<td>Topics in Image Analysis (can be repeated once for credit)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>GOG 597</td>
<td>Advanced GIS</td>
<td>GOG 496/596/USP 456/PLN 556 or equivalent courses.</td>
<td>3</td>
</tr>
<tr>
<td>Cyber Threat Analysis</td>
<td>EHC 545 Principles and Practices of Cybersecurity</td>
<td></td>
<td>4</td>
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<tr>
<td></td>
<td>EHC 569 Cyber Threats &amp; Cyber Intelligence</td>
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<td>4</td>
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<tr>
<td></td>
<td>INF 552 Computer and Network Security</td>
<td>INF 306 or background in cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>INF 553 Information Security and Privacy</td>
<td>INF 306 or background in cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>INF 554 Human Aspects of Cybersecurity</td>
<td>INF 306 or background in cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>INF 555 Prevention and Protection Strategies in Cybersecurity</td>
<td>INF 306 or background in cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>INF 585 IT and Homeland Security</td>
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<td>4</td>
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<tr>
<td></td>
<td>ITM 645/CYB 645 Psychology and Information Security</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Crime, Violence, and Terrorism</td>
<td>EHC 629 Transnational Organized Crime</td>
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<td>4</td>
</tr>
<tr>
<td></td>
<td>IST 532 Terrorism, Public Security, and Information Analysis</td>
<td></td>
<td>3</td>
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<tr>
<td></td>
<td>PAD 551/CRJ 648 Terrorism, Public Security, and Law Enforcement</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PAD 554/POS 554/INT 543/EHC 554 Political Violence, Insurgency and Terrorism</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CRJ 555 Crime Analysis for Problem Solvers</td>
<td>Recommended: a basic knowledge of Problem Oriented Policing, elementary statistics, and mapping</td>
<td>3</td>
</tr>
</tbody>
</table>
Library and Information Services
Graduates of this specialization typically gain employment in academic, special, or public libraries.

Required Courses:
- CIST 603: Information Processing (3)
- CIST 605: Information Sources and Services (3)

Students take electives in the College of Emergency Preparedness, Homeland Security and Cybersecurity, and in other departments throughout the University to support this concentration.

Information Science School Librarian
Eligibility for NYS K-12 certification requires the following courses, in addition to the requirements listed separately on the school library media program description. Information on the ISSL track requirements is in the following section.
Information Science School Library

A student must be admitted specifically to the specialization for school library media specialist in order to qualify for New York State certification through the University.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST 571</td>
<td>Literature for Children (3)</td>
<td></td>
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<tr>
<td>IST 578</td>
<td>Literature for Young Adults (3)</td>
<td></td>
</tr>
<tr>
<td>IST 601</td>
<td>The Information Environment (3)</td>
<td></td>
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<tr>
<td>IST 602</td>
<td>Information &amp; Knowledge Organization (3)</td>
<td></td>
</tr>
<tr>
<td>IST 605</td>
<td>Information Sources &amp; Services (3)</td>
<td></td>
</tr>
<tr>
<td>IST 608</td>
<td>Research Methods (3)</td>
<td></td>
</tr>
<tr>
<td>IST 668</td>
<td>Internship (6) [Prerequisite: 100 hours of field experience over the course of CIST 670, 673, &amp; 675, permission of advisor]</td>
<td></td>
</tr>
<tr>
<td>IST 670</td>
<td>Teaching Fundamentals for School Libraries (3) [includes 20 hours’ field experience]</td>
<td></td>
</tr>
<tr>
<td>IST 673</td>
<td>School Libraries: Theory, Practice, and Assessment (3) [includes 40 hours’ field experience]</td>
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<tr>
<td>IST 675</td>
<td>Curriculum &amp; Supportive Resources (3) [includes 40-hours’ field experience]</td>
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</tr>
<tr>
<td>IST 676</td>
<td>Administration of School Media Centers (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Education Requirements**

Minimum of 12 education credits, including the following content areas, for those who are not certified teachers:

- Human Development/Social Concerns in Education (3 credits)
- Language Acquisition/Literacy/Reading and Writing Instruction (6 credits)
- Enhancing the Learning of Students with Disabilities (3 credits)

**Field Experience and Internship**

A minimum of 100 hours of supervised field experience will be completed through class assignments in the following school media course sequence: IST 670, IST 673, and IST 675. Field experience must be divided equally between elementary (K-6) and secondary (7-12) schools. At least half of the field experience will be completed in high-needs schools.

Two supervised school media internships of 200 hours or 40 days each, one elementary (K-6) and one secondary (7-12), must be completed. One of these must be in a high-
needs school. A minimum of 18 credits must be completed prior to the internship and must include courses that include field experience (listed above).

Experienced teachers or those working in a school library may be eligible for alternate models of field experience and internship. Similarly, internship requirements can be waived for practicing school librarians, including teachers who are filling the library media specialist position. Please see your faculty advisor for details.

**General Education Core**

This program requires college-level study in the following:
- Artistic Expression (art, dance, music, or theatre)
- Humanities (literature, religion, philosophy, cultural anthropology, women’s studies, linguistics)
- Communication (Speech, communications, journalism, media, public speaking, English, written or data analysis, and composition)
- Written Analysis/Expression (English Composition, Creative Writing and Introduction to Writing)
- Information Retrieval (Library Studies, research, computer literacy, and educational technology)
- Historical or Social Science (history, political science, economics, geography, public affairs, law, sociology, psychology)
- Language other than English (including American Sign Language)
- Scientific Processes (Natural Science: biology, chemistry, earth science, and physics). This does **not** include: nutrition, engineering, environmental science, agriculture or any other applied sciences.
- Mathematical Processes (Now, called Mathematics: mathematical reasoning, quantitative methods number theory and concepts, algebra, analytic, geometry, calculus, geometry, trigonometry, data analysis, probability, and discrete mathematics). This does **not** include: computer science, accounting, or finance.

**NYS Certification Requirements**

- Completion of a NYS Registered Program – Library Media Specialist
- Institutional Recommendation – Library Media Specialist
- Passing Score on the New York State Teacher Certification Exams: EAS and the content specialty test (CST) for Library Media Specialists. More information can be found at [http://www.highered.nysed.gov/tcert/certificate/certexam.html](http://www.highered.nysed.gov/tcert/certificate/certexam.html)
- **NOTE:** Plan ahead.
- edTPA – Library Specialist
- Child Abuse Recognition & Prevention Workshop. Learn more about this workshop: [http://www.highered.nysed.gov/tcert/certificate/ca.html](http://www.highered.nysed.gov/tcert/certificate/ca.html)
- School Violence Prevention & Intervention Workshop. Learn more about this workshop: [http://www.highered.nysed.gov/tcert/certificate/save.html](http://www.highered.nysed.gov/tcert/certificate/save.html)
- Dignity for All Students Act Workshop. Learn more about this workshop: [http://www.highered.nysed.gov/tcert/certificate/dasa-applicant.html](http://www.highered.nysed.gov/tcert/certificate/dasa-applicant.html)
• Fingerprinting for a criminal history background check (OSPRA). More information: [http://www.nysed.gov/educator-integrity/fingerprinting](http://www.nysed.gov/educator-integrity/fingerprinting)

For additional information on NYS requirements, please consult the NYS Teacher Certification web page at [http://www.highered.nysed.gov/tcert/](http://www.highered.nysed.gov/tcert/).

**Certification Links:**

- School of Education's Pathways into Education Center (PIE): [http://www.albany.edu/education/pie.php](http://www.albany.edu/education/pie.php)
- NYSTCE Exam Information: [https://www.nystce.nesinc.com/](https://www.nystce.nesinc.com/)

For more details, please contact the Information Science School Library program at (518) 888-6761 or issl@albany.edu.
MASTER OF ARTS/MASTER OF SCIENCE IN INFORMATION SCIENCE DUAL DEGREES (M.A./M.S.I.S.)

Degree programs combining the M.S.I.S. and the M.A. in either History, Public History, or English are offered. By applying up to 13 credits maximum between each program, a student can reduce the total number of credits needed for both degrees. However, faculty responsible for concentrations in each program may require the student to complete additional course work.

Students may be admitted to a dual master's degree program at the beginning of their graduate studies, but not later than after completing 20 graduate credits applicable to a dual master's degree program. Work done for an awarded master's or doctoral degree may not be used for this program. Students may leave a dual program before completion of both degrees. If the requirements for one degree have been fulfilled, that degree may be awarded. You must be admitted to graduate study in both the M.A. and M.S.I.S. degree programs for the dual degree program.

M.A./M.S.I.S. in History (53-59 credits)
The M.S. in Information Science is a 36-credit degree program (for all concentrations). The M.A. in History is a 30-credit degree program (for a concentration in Geographic or Thematic area) and a 36-credit degree program for a concentration in Public History.

M.A. in History with a concentration in a Geographic or Thematic Area (30 credit hours minimum)

**History Courses:** (21 credits minimum) Courses as advised, including at least one research seminar in the appropriate major field and one reading seminar. With departmental approval, a thesis in history for 4-6 credits may be presented in place of or in addition to the seminar.

**Supporting Courses:** (0-9 credits) Courses in the social sciences and other fields as advised; 6 credits from Information Science.

**Major Field Exam:** Satisfactory completion of a major field examination in the chosen concentration (Geographic or Thematic).

<table>
<thead>
<tr>
<th>Geographic</th>
<th>Thematic</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States History</td>
<td>Local and Regional History</td>
</tr>
<tr>
<td>Modern European History</td>
<td>International History</td>
</tr>
<tr>
<td>Latin American History</td>
<td>Social and/or Economic History</td>
</tr>
</tbody>
</table>
**Foreign Language Requirement:** A reading knowledge of one foreign language appropriate to the student’s major field is required for M.A. candidates writing Master’s theses on non-U.S. topics. This requirement can be fulfilled by an examination in the Department, by an examination administered by a language department with approval from the History Department, or by satisfactory completion of a graduate level language course that has been approved by the History Department. A student may not take the language examination more than twice for the M.A. degree.

**M.A. in History with a concentration in Public History (36 credit hours minimum)**

**History Courses:** (18-21 credits minimum) Courses as advised, including at least one research seminar in the appropriate major field and one reading seminar. With departmental approval, a thesis in history for 4-6 credits may be presented in place of or in addition to the seminar.

**Public History Professional Courses:** (9-12 credits) Courses in the social sciences and other fields as advised; 6 credits from Information Science.

**Major Field Exam:** Satisfactory completion of a major field examination in the Public History concentration.

**Public History Internship:** (6 credits minimum) Students in the dual program who choose to concentrate in Public History must complete a total of six internship credits to satisfy the requirements of the two degrees. These credits may be satisfied in a variety of ways:

- Students may take HIS798A (Public History Internship for six credits. If the proposed internship is approved in advance of its completion by the Information Science program, this course will satisfy the requirement for IST 678 (Internship).)
- Students may split the internship between the two programs, taking HIS 599 (Special Projects in History) and IST 678 for three credits each. If the proposed internship is approved by the History Department, this combination will satisfy the 6-credit requirement for the concentration in Public History.
- Students may take IST 678 (Internship) for six credits. If the proposed internship is approved in advance by the History Department, it will satisfy the requirement for HIS 798A (Public History Internship).
- Note that because of the additional six-credit internship requirement for students in the Public History concentration, students doing the M.A. concentration in Public History are required to complete a minimum of 59 credits for both degrees.
instead of the 53 credits required for students pursuing the regular M.A. in History. Shared internship credits count towards the 13 total allowed shared graduate credits between the two programs.

**Master of Science in Information Science (36 credit hours minimum)**

**Required Courses:** (15 credits)
- CIST 601: *The Information Environment* (3)
- CIST 602: *Information and Knowledge Organization* (3)
- CIST 608: *Research Methods* (3)
- CIST 614: *Administration of Information Agencies* (3)
- CIST 678: *Internship* (150 hours) (3)

**Concentration Courses:** (6-12 credits)
- Archives and Records Administration: CIST 546, 547, 654 or 660, 656
- Data Analytics: Tool requirement, CIST 506, CINF 624
- Information Management and Technology: CIST 533, 560, 565, 611
- Intelligence Analysis: CIST 529 (tool requirement), 667, CEHC 557
- Library and Information Services: CIST 603, 605

**Supporting Courses:** (9-15 credits)

**M.A./M.S.I.S. in English (55 credits)**

**M.A. in English (32 credits minimum)**

**English Courses:** (12 credits minimum):
- Textual Practices I - ENG 500 (4);
- One course numbered 600 or above (4);
- ENG 699 Master’s Thesis (4); or ENG 698 Master’s Research Tutorial (4) and Examination

**Supporting courses:** (20 credits): Selected subjects in English or other academic fields as advised. Up to 8 credits may be taken in other fields (6 credits must be from Information Science), but this coursework must be approved by the M.A. Director.

**Master of Science in Information Science (36 credits minimum)**
(See requirements above)
B.A./M.S.I.S. or B.S./M.S.I.S. DEGREE COMBINED DEGREE PROGRAMS

The combined B.A./M.S.I.S. or B.S./M.S.I.S. program in information science provides a unique opportunity for capable, highly motivated students to pursue an undergraduate major while at the same time beginning their graduate degree or professional preparation for a career in information science. M.S.I.S. concentrations include Archives and Records Administration, Data Analytics, Information Management and Technology, Intelligence Analysis, and Library and Information Services. Students interested in pursuing the Information Science School Library program (leads to NYS certification for School Library Media Specialist) should first contact ISSL@albany.edu before applying to this combined degree program.

In qualifying for the baccalaureate, students will meet all University and program requirements, including existing major and minor requirements, general education requirements, minimum liberal arts and sciences requirements, and residency requirements. A minimum of 120 credits is required completion of the B.A. or B.S. After the semester in which they complete 120 credits, including up to 12 graduate credits, students are considered graduate students for the purposes of tuition and eligibility for graduate assistantships, fellowships, and loans. Students apply for the undergraduate degree when all B.A. or B.S. requirements are met and then continue with full graduate status in the following semester.

Students may be admitted to the combined program at the beginning of their junior year or after successful completion of 56 credits. A carefully designed program can enable the student to earn the B.A./B.S. and M.S.I.S. within 10 semesters. A cumulative grade point average of 3.20 or higher and three supportive letters of recommendation are required for admission. The Graduate Record Exam is not required for admission.

CEHC: B.S. Informatics or B.S./B.A. Emergency Preparedness, Homeland Security and Cybersecurity with M.S. I.S.

One of the unique and central elements of the CEHC combined program is the ability to substitute four of the required undergraduate courses with four of the core graduate courses.

- IST 601: The Information Environment; replaces INF 499 or 1 EHC elective
- IST 602: Information & Knowledge Organization; taken as a graduate student
- IST 608: Research Methods; replaces INF 466 or EHC 410
- IST 614: Management of Information Agencies; replaces 1 INF/EHC elective
- IST 678: Internship Experience; replaces INF 468 or EHC 390

Non- CEHC: B.A./M.S.I.S. or B.S./M.S.I.S. Degree Requirements

Students in undergraduate majors outside of CEHC may complete a minor in information science and policy including the courses listed below.

- ICSI 105
- CINF 201
- CIST 523
- CIST 601
• CIST 602
• One additional CIST courses at 500 level or above

CLARIFICATION TO STUDENTS IN COMBINED BACHELOR’S/MASTER’S PROGRAMS

As noted above, “Students are considered undergraduates until they have accumulated 120 credits, satisfied all degree requirements and been awarded the baccalaureate degree.”

However, although students who have failed to satisfy “all degree requirements” will not be granted the baccalaureate degree until all undergraduate requirements are met, please be aware that for determining such matters as whether students pay undergraduate or graduate tuition, the following policy applies:

“Although admitted to an integrated degree program, students will be considered as undergraduate students for purposes of tuition, financial aid, and headcount identification until completion of 12 credits of graduate work or until qualified to receive the bachelor’s degree. In the semester in which a student enrolls in the 13th credit of graduate course work, he or she will be considered a graduate student for purposes of tuition, headcount identification, and eligibility for graduate assistantships, fellowships, and loans whether or not the student has completed the degree.

Students’ progress through the combined program will be reviewed in the Office of the Vice Provost for Undergraduate Education to ensure timely completion of the undergraduate degree. Academic advisors of bachelor’s/master’s programs and students themselves should also attend to course enrollment choices that lead to timely completion of undergraduate requirements.” (Accepted by University Senate, March 9, 2009, revised by the Undergraduate Academic Council, November, 2015)

Students interested in further information regarding the combined programs should contact the appropriate program’s department* or the Office of the Vice Provost for Undergraduate Education, LC 30 (518-442-3950).

http://www.albany.edu/undergraduate_bulletin/joint_degree.html
*The Information Science Program contact is Draper 015, 442-5258, cehc@albany.edu.
CERTIFICATE OF ADVANCED STUDY IN LIBRARY AND INFORMATION SCIENCE (CAS)

The profession of information and library management is experiencing rapid growth in its body of knowledge, and also in the technology used in libraries and other information agencies. Librarians and other information professionals who hold the Master of Library Science or equivalent degrees almost universally feel the need for educational upgrading, for the acquisition of further knowledge and additional skills or technical capabilities.

Many individuals who seek such education prefer to study in an organized program leading to a post-master's credential. Such a credential can be helpful in connection with changes in position and with promotion decisions.

The Certificate of Advanced Study represents the completion of an integrated and rigorous program of study. The special requirements are designed to ensure the quality of the program.

The program leading to the Certificate of Advanced Study includes a minimum of 30-semester credits of graduate study beyond the master's degree. All credits applied toward the C.A.S. must be completed within a period of five years. Up to six of the 30 required credits may be transferred from work taken at another institution. The five-year time limit applies to these credits also. Within the requirements of the specialty selected and through individualized advisement, a program will be designed for the student utilizing a substantial number of courses within the college, supplemented by courses from other relevant departments and schools of the University.

You are eligible if . . .

- you have a master's degree in library science, information science, or a closely related field, with demonstrated academic excellence
- you have had two years of successful professional experience
- your professional interests and goals match the program capabilities of the School and you would benefit from the program

C.A.S. Program Requirements

1. Required Courses: (12 to 18 credits)
   - IST 701 Pro-Seminar in Information Science and Policy (3)
   - IST 702 Directed Readings in Information Science and Policy (Subfield Specific) (3)
   - IST 768 Advanced Internship in Information Science and Policy (3 credits)
   - IST 780 Major Research Seminar (3-6)

2. Specialization Courses: (6 to 12 credits)
   Examples of a possible specialization:
   - Information systems development
• Information resources management for public sector decision-making
• Reference and information services
• Records and archives management
• Services for special groups
• Indexing and abstracting
• Government information resource management

3. **Supporting Courses: (6 credits)** As advised from other academic or professional programs, such as the following: School of Business, School of Education (Educational Theory and Practice, Educational Administration and Policy Studies, Reading), Graduate School of Public Affairs (Public Administration, Political Science), College of Arts and Sciences (Computer Science, Communications, History)

4. **Comprehensive Exam:** An examination, individually tailored to the student’s concentration, is to be taken at the end of the student’s program of study. The examination assesses:
   a) mastery of chosen specialization
   b) knowledge of major trends and issues in the field; and
   c) familiarity with research methods and priorities
COURSE DESCRIPTIONS
For the most current, updated list of available classes, visit the course index on the Graduate Bulletin webpage.

CIST 502: History of Recorded Information (3)
An introduction to the history of how human beings have created, maintained, and preserved information for personal, official, and cultural purposes. Topics will include the development of writing, recordkeeping, and libraries; the emergence of printing and the history of the book; the evolution of recordkeeping by organizations, government, and individuals; and the impact of different technologies on the development of print and digital culture.

CIST 506: Database Systems and Data Analytics (3)
Formerly IST 658. Covers database concepts, technologies, and applications. The course will have an emphasis on database management systems (DBMS) as a foundational technology in the context of library and information professions. Concepts covered include DBMS design, implementation, and life cycle, including user interface and programming issues. The course will also involve hands-on implementation of DBMS as a vehicle for data analysis tasks, including issues of data collection, cleaning, and processing. Only one of IST 658 or IST 506 may be taken for credit.

CIST 523: Fundamentals of Information Technology (3)
Introduces essential information technology skills for information professionals. Students learn how operating systems, hardware, software, and networks interoperate. Includes an overview of web-based applications, including XHTML, JavaScript, digital representation of information, database basics, and information security.

CIST 529: Text Analysis (3)
Text Analysis provides an overview of two major approaches to text analysis: computational linguistics (aka Natural Language Processing) and content analysis. The first part of the course focuses on understanding and implementing common computational linguistics procedures (classification, summarization, topic modeling, and sentiment analysis) using Python and libraries such as the Natural Language Toolkit (nltk). The second part of the course turns to content analysis approaches using Profiler Plus and a variety of coding schemes. In the final part of the course, students will develop or extend an existing approach to analyze a corpus of texts they select in a manner of their choosing. Prerequisite: None. Prior experience with Python would be helpful.

CIST 530: Topics in Information Security (1-6)
This course covers varying and current topics in the field of information security. The focus of the course may vary from one offering to the next to reflect the rapidly emerging nature of this topic.

CIST 532: Terrorism, Public Security, and Information Analysis (3)
This course discusses information technologies available to assist in intelligence analysis, as well as defensive tools used to combat cyberterrorism and protect our information-based infrastructure. Techniques include advanced information retrieval,
summarization, and linking, data analysis and data mining technologies. Legal and ethical issues related to intelligence gathering and monitoring will also be included.

**CIST 533 (graduate); CIST 433 (undergraduate): Information Storage and Retrieval (3)**
An introduction to current practices in information retrieval. Topics covered include key concepts in information storage and retrieval, the document and query structure, matching mechanisms and formal retrieval models, output presentation, and the evaluation of system effectiveness. Includes an investigation of the inner workings of retrieval systems and search engines.

**CIST 535: Web Database Programming (3)**
This course covers the application of database technology to the service of Websites. Students learn practical programming skills in a hands-on project-based course and acquire the ability to develop a database-backed, dynamic and feature-rich Web site. *Prerequisite*: CIST 523 or permission of instructor.

**CIST 538: Fundamentals of XML (3)**
Extensible Markup Language (XML) provides a standard to support automated processing across platforms and applications. Students will learn practical applications of XML and will apply the standard to sample texts and objects.

**CIST 546: Fundamentals of Records Management (3)**
Basic concepts and practices of records management in governmental, institutional, and corporate agencies, including those areas of communication, administration and computer technology that relate to the efficient and effective flow of information from its generation to its final disposition. Will include records inventory, active and inactive records control, manual and automated systems, vital records protection, the records center, micrographics technology and applications, and legal and ethical aspects of records management.

**CIST 547: Electronic Records Management (3)**
Topics include problems of defining records and documents in a digital environment, analysis and understanding of the requirements for creating and keeping records digitally, developing information systems that create usable and accessible digital records, and preservation of and access to digital materials. The emphasis is on electronic records created by institutions and organizations. *Prerequisite*: CIST 656 or CIST 546.

**CIST 557: Introduction to Legal Research (3)**
Examination and analysis of the basic and specialized information sources that provide a structure for legal research. Topics include court reports, digests, annotations, constitutions, Shepard’s citations, loose-leaf reporters, legal encyclopedias and periodicals. Assignments in WESTLAW and LEXIS-NEXIS online databases will provide hands-on familiarity with computer-assisted legal research (CALR).

**CIST 560: Information and Public Policy (3)**
Analysis and evaluation of public policies affecting the production, dissemination, and access to information generated by or for the federal government. Topics and issues include concepts of intellectual freedom, the public's right to be informed, freedom of information and privacy legislation, policies on the dissemination of information in non-print formats, national security classification, privatizing of government information, issues of equity, and related policy matter.

CIST 561: Web Design and Development (3)
This course introduces principles of Web design and development through readings, exercises, discussions, hands-on lab activities, lectures, projects, and presentations. Topics covered include: Web design basics, HTML/XHTML, Web technologies, CSS, Web graphics, dynamic HTML/XHTML, usability, evaluation of Websites and Web-based online resources, and accessibility. Students should not take IST 561 if they have taken IST 361, INF 201 or INF 362

CIST 565: Human Information Behavior (3)
Human Information Behavior (HIB) is central to the field of Information Science and is very relevant to all the tracks in the MSIS program. The course introduces theories, methods and models relating to information behavior. Examines human information behavior, including information needs, information seeking and use in different situations, environments, and populations. Essentially the course focuses on the relationship between information and human behavior. Presents an overview of HIB in different contexts, including information behavior in science, technology, education, medicine, health and in various professions. The use of information resources in different social contexts, such as in everyday life information seeking (ELIS) and also in the context of digital libraries, IR and the web.

CIST 566: Special Problems in Information Science & Policy (3)
Special course on a current problem, issue, or development in information and library science.

CIST 571: Literature for Children (3)
Provides an introductory survey of literature for children (ages 0-12) with an emphasis on current authors and illustrators from diverse backgrounds. Exploration of appropriate strategies to enhance children's appreciation for diverse backgrounds and experiences including economic, family and cultural backgrounds to create a cohesive community. Application of strategies for using and adapting assessment strategies to inform programming and instruction. Explores a variety of techniques to ensure that librarians meet the needs of all children through their collections, programs and instruction. Specific attention is given to adaptive and assistive technologies as well as differentiation of materials, programming and instruction for all children, including children from homes where English is not the primary language.

CIST 578: Literature for Young Adults (3)
Provides an introductory survey of literature for young adults (ages 12-18), with an emphasis on current authors. Includes a discussion of the characteristics, needs, and reading interests of young adults using the diversity that exists in the classroom and community which may include young adults of different genders and sexual orientations,
different cultures and backgrounds and young adults from homes where English is not the primary language. Provides a critical study of the literature, an overview of basic selection tools, practice in book talking and usage of research and evidence-based strategies to promote, through reading, young adults' understanding and respect for diversity and inclusion.

CIST 601: The Information Environment (3)
Provides a theoretical background for students entering the information science professions. Through guest speakers, field trips, a variety of readings, class discussion, lectures, and writing assignments, students gain knowledge of the critical themes in the field, such as information seeking, users, environments, policies, and ethics.

CIST 602: Information and Knowledge Organization (3)
An introduction to fundamental concepts and theoretical principles of knowledge-organization models and techniques used to facilitate access to information resources. The emphasis in this course is on interdisciplinary ideas and concepts. General consideration of reference/information services, the kinds of knowledge, the kinds of formats in which knowledge is recorded, and the ways in which it is pursued and retrieved.

CIST 603: Information Processing (3)
An introduction to the principles and practices of bibliographic control, including cataloging and classification. A variety of methods, systems, and tools are used to illustrate the application of underlying principles in a practical situation. Prerequisite: CIST 602

CIST 605: Information Sources and Services (3)
General consideration of reference/information services, the kinds of knowledge, the kinds of formats in which knowledge is recorded, and the ways in which it is pursued and retrieved.

CIST 606: Collection Development and Management (3)
Theoretical and practical aspects of the selection, acquisition, evaluation, and management of resources to meet the information needs of clientele in libraries and other institutions. Prerequisite: CIST 605.

CIST 608: Research Methods (3)
Basic research methods and statistics for students entering the information science professions. Covers descriptive and inferential statistics through correlation and regression; basic research process methods, quantitative and qualitative, and the creation of grant or research proposals. Prerequisite: previous IST coursework recommended.

CIST 610: Visual Resources Management (3)
Addresses the knowledge and competencies required by the visual resources profession. This course is concerned with the management of visual resources, such as images, photographs, moving images, cultural objects and the like. Provides the necessary background to work in art libraries, museums, special collections, and institutions where
information professionals are responsible to oversee and manage image/visual resources collections. Students will have an opportunity to work on practical problems and projects.

**CIST 611: Information Systems (3)**
This course provides a detailed survey of information systems. It will present conceptual, theoretical, historical, social, economic, and ethical issues surrounding the development, deployment and management of dominant information systems technologies. Topics covered include: information systems architectures, database management systems, transaction processing, eCommerce, telecommunications, software and hardware standards, Web-based systems, data warehousing, data mining, agent-based systems, and social impacts of information systems.

**CIST 614: Administration of Information Agencies (3)**
Principles and theory of administration. Consideration of planning, organization, budgeting, personnel, standards, inter-institutional cooperation. **Recommended:** IST 601.

**CIST 617: Academic Libraries and Higher Education (3)**
The course studies the academic library in the context of the changing environment of higher education, including the historical development of institutions of higher education and their libraries in the U.S. Enrolled students will analyze the academic library, its functions, and its relationships within the various institutions of which they are a part and study current challenges confronting academic libraries. **Prerequisite:** CIST 601.

**CIST 618: Public Libraries (3)**
This course focuses on current issues, practices and trends in public library organizations, planning, and service delivery. Topics include levels of governance in public libraries; the role of state charters, systems, and trustees; public, technical and administrative services; and professional development, including career paths, continuing education, and compensation. **Prerequisite:** CIST 601.

**CIST 623: Special Topics (1)**
A short one-credit course examining aspects of library science. Topics change from semester to semester.

**CIST 636: Systems Analysis in the Information Environment (3)**
Theory and methods of systems analysis as applied to information systems and services.

**CIST 649: Information Literacy Instruction: Theory and Techniques (3)**
This course is an introduction to user education in a variety of types of libraries and other information-related organizations. The history of library instruction, theoretical issues in the field, instructional program development, and teaching techniques will all be included. Students will develop and present an instructional session designed for a specific library or other user groups.
CIST 653: Digital Libraries (3)
Provides an overview of both the theoretical and practical aspects of digital libraries. Topics covered include types and formats of digital content, collection development and selection, digitization and underlying technologies, metadata, organization, access, preservation, project management, and evaluation and use of digital libraries.

CIST 654: Preservation Management in Archives and Libraries (3)
An introductory survey of preservation management in libraries and archives, covering such topics as the historical evolution of the preservation dilemma, programs for academic and public libraries, collections maintenance and environmental controls, commercial binding and rebinding, selecting for preservation and microfilming, security, archival preservation, paper conservation, disaster planning and recovery and preservation of non-print materials (including electronic media).

CIST 655: Rare Books (3)
Introduction to the handling and development of rare book collecting; conservation and preservation; terminology and principles of bibliographic description; the antiquarian book trade; the history of rare book collection; important collections.

CIST 656: Archives and Manuscripts (3)
Administration of archival and manuscript collections; appraisal, arrangement, description, and reference services; current practices at national, state, and local levels. Topics include concepts of records management, preservation and conservation, online retrieval systems, and freedom of access and privacy.

CIST 660: Archival Representation (3)
Introduction to the history, theory, and practice of the representation of archival materials. Examines arrangement principles, descriptive standards, current research, and implementation of description programs for archival access. Students study different types of surrogates, including finding aids, MARC, EAD, and archival metadata and complete a description project at a local repository.

CIST 666: Current Problems in Information Science (3)
Special course on a current problem, issue, or development in library or information science and policy.

CIST 667: Intelligence Analysis Research Seminar (3)
Students work with a faculty advisor on an academic research project on a topic of interest to the student and faculty member, related to student's substantive and technical interests. Final projects should contain a statement of research questions, the proposed method for addressing the questions, data collection, and analysis or other analytic activity, and project discussion. Students are expected to complete the guided research project in two semesters in one of two ways: 1) Developing a project in one of their elective courses and completing that project in a single semester of the Intelligence Analysis Research Seminar. 2) Completing two consecutive semesters of the Intelligence Analysis Research Seminar, where the first semester is devoted primarily to the design of the project and necessary data collection and the second semester is devoted primarily to
data analysis and writing. **Prerequisite:** Completion of at least 24 Information Science Masters credits, including program core courses.

**CIST 668: Internship (3-6; ISSL Program only)**  
Two 40 day sessions, for a total of 80 days or at least 400 hours. Opportunity for curriculum development, program development, research design, teaching, skill development and problem solving through observation and instructional practice, documented by formative assessments, in an information environment designed to meet the learning and information needs of all students, under the supervision of a faculty member and a certified tenured school library media specialist or other information professional. Prerequisites: 18 credits completed toward the Master's program, 100 hours of field experience and consent of advisor.

**CIST 669: Independent Study in Information Science (1-3)**  
Supervised reading, research, or field project in some specialized area of library and information science and policy to meet the needs of advanced students. Written approval of the independent study proposal by a supervising faculty member and by the Information Science Chair is required prior to registration. **Prerequisite:** 12 credits of graduate course work in Information Science.

**CIST 670: Teaching Fundamentals for School Libraries (3)**  
Introduces students to the professional roles and responsibilities of today's 21st century certified school librarian by having students shadow school librarians in three educational settings (elementary, middle and high school). Emphasizes the interdisciplinary teaching role of school librarians and highlights strategies for working collaboratively within the school environment and the importance of documenting evidence of practice. Utilizes research-based strategies to introduce students to information literacy curriculum and educational assessment literacy. Introduces students to school--based and community-based resources to enhance information literacy instruction for diverse student populations. Identifies school librarian responsibilities and requirements in working with students with disabilities and other special learning needs. Includes supervised school library field experience hours.

**CIST 673: Technology in School Library Media Centers: Theory, Practice, Application, and Assessment (3)**  
This is the capstone course for the school library program. The course is applicable for school librarians and educators who wish to learn how to document evidence of their practice and obtain fluency in information literacy and assessment literacy. Students complete a practicum which is a performance based assessment, consisting of 5-8 lessons, collaboratively developed with the student's mentor, based on current research in library and information science and cognitive science, aligned to local, state and national standards, customized to meet the learning needs of a specific student body, implemented within the PreK-12 learning environment, and assessed through a series of formative assessment instruments designed by the graduate student. Graduate students demonstrate that they have consulted and collaborated with specialists in the PreK-12 environment to identify appropriate resources, technology (including assistive technology) and instruction to meet the individualized needs of students with disabilities and other special learning needs. The design of the curriculum unit must demonstrate
knowledge of the PreK-12 students' cultural backgrounds, individual needs, talents and personal interests. The lessons exhibit knowledge of individual students' cognitive style, prior learning, and apply knowledge of criteria and procedures for evaluating, selecting, creating and adjusting instructional materials to meet the learning needs of all students. Formative assessment information is gathered, interpreted and used to shape current and subsequent instruction to determine whether the PreK-12 students have mastered the specified learning objectives. Assessment information is also used to help graduate students modify their instruction to help all PreK-12 students master the learning objectives. A final report documents of evidence of the graduate student’s practice: summarizes the results and provides a self-reflective assessment describing pedagogical and instructional strategies to improve his/her practice. Includes school library field experience hours. Prerequisites: IST670 (if applicable) and IST675.

CIST 675: The Curriculum and Supportive Resources (3)
This course, grounded in evidence-based theory and practice, introduces students to information literacy curriculum by teaching preservice and/or in-service educators how to design, assess and evaluate information literacy curriculum and resources for elementary, middle and high school students. Applies knowledge of how to select and modify curricula, assessments, information resources, and adaptive and assistive technologies to meet the individualized needs of students with disabilities and other special learning needs. Principles of instructional design (including universal design), cognitive learning styles, and research-based strategies for educational assessment and evaluation are scaffolded into a series of performance-based assignments that culminate in an information literacy learning segment, customized to address the diverse learning needs of PreK-12 students and aligned to local, state and national standards. The learning segment is co-planned with the graduate student's mentor and implemented in the student’s field placement. The lesson is systematically assessed through a series of formative assessments designed by the student to document the effect of the lesson(s) on the academic performance of PreK-12 students as well as the instructional effectiveness of the graduate student. Graduate students learn how to integrate research-based instructional strategies that are responsive to the characteristics and learning needs of all students. Includes school library field experience hours. Prerequisite: IST 670 (if applicable).

CIST 676: Administration of School Media Programs (3)
Problems, practices, and research in the organization, administration and management of school library media centers. The course examines problems, practices and research in the organization, administration and management of school media centers including practices related to local and national standards; services, facilities, policies, and planning including designing and maintaining facilities for persons with disabilities and special needs; budgeting, personnel and organizational factors; public relations, safety and advocacy. The course incorporates knowledge of federal and state laws, policies, and regulations (e.g., Individuals with Disabilities Education Act [IDEA], Section 504 of the Rehabilitation Act of 1973) and ethical considerations (e.g., confidentiality rights and responsibilities of stakeholders) related to the education of students with disabilities.

CIST 677: Creating Innovators – The Maker Movement (3)
Designed for PreK-12 educators, school library media specialists, teacher-librarians, classroom teachers, STEM educators, tech integrationists, educational technology teachers, public, special and academic librarians. Explores evidence-based strategies that support building models, prototypes, inventions and innovations to encourage creative problem solving and team collaboration across a range of subject matters, abilities and ages. Applications of learning theory and assessment strategies to create interdisciplinary inquiry-based maker experiences to meet the needs of users from a variety of backgrounds including English Language Learners, exceptional children and adult learners, while promoting a safe and supportive environment for exploration and learning.

**CIST 678: Internship (3-6)**
Opportunity for skill development and problem-solving through observation and practice in an information environment under the supervision of a faculty member and a cooperating librarian or other information professional. Meetings, reports, and 150 hours of experience required. *Prerequisites:* 18 credits completed toward M.S.I.S. and consent of advisor.

**CIST 680: Seminar (3)**
In-depth research of a specific problem or issue in information science and policy. Class reports, discussions, and submission of a major paper are required. *Prerequisites:* CIST 608 or equivalent, and consent of instructor. Limited to students who have completed a minimum of 15 credits of graduate study in library and information science.

**CIST 699: Master's Thesis in Information Science and Policy (2-6)**
*Prerequisites:* CIST 608 or equivalent and consent of instructor and Associate Dean.

**CIST 701: Proseminar in Information Science and Policy (3)**
Trends, issues, and problems in information science and policy; problem formulation; research design and method; development of research projects.

**CIST 702: Directed Readings in Information Science and Policy (3)**
Supervised reading on selected topics in information science and policy appropriate to the planned specialization of the advanced student. (May be taken twice).

**CIST 768: Advanced Internship in Information Science and Policy (3-6)**
Planned experiences which emphasize the student’s professional objective. Includes a critical and analytical paper on some aspect of the program of the library or information center in which the internship takes place.

**CIST 780: Major Research Seminar (3-6)**
Preparation of a major research paper in the area of the student’s specialization. Paper is expected to follow thesis format and be suitable for deposit in University Library or ERIC Clearinghouse.

**EHC 545 (Pad 545) - Principles and Practices of Cyber Security (4)**
This course provides a broad introduction to cyber security and the way in which cyber security is viewed, studied, or executed by professionals in industry, government, the
military, and academia. For students that approach the topic from a policy or management perspective, this class will enhance your understanding of the interaction between social, technical, policy, and management factors that affect the creation and management of secure cyber infrastructure. A brief introduction to the technical side of cyber security will be provided. The course will offer technically advanced students an opportunity to better understand the management, policy, and political equities involved in cyber security. Students approaching the subject from either the technical or policy/management perspectives will be equipped to take a more advanced technical courses in a multitude of disciplines that make up cyber security.

**EHC 546 (Pad 546) – Homeland Security Risk Analysis and Risk Management (4)**

This course looks at the various risks that homeland security professionals and researchers are forced to grapple with, including the various threats, vulnerabilities and consequences associated with these risks. It examines important homeland security policy areas through a risk analysis framework, with an emphasis on issues like infrastructure protection and resilience, cybersecurity, terrorism, and the implications of catastrophic disasters (both naturally occurring and human-caused disasters). In each of the policy areas of concern, the class will discuss both the risks that exist, but also risk mitigation strategies; including the building of capabilities for preparedness, prevention, protection, response, and recovery. Prerequisites: Pad 554 or permission of instructor.

**EHC 549 (Pad 549) - Cyber Security: Long Term Planning and Risk Management (4)**

The goal of this course is to equip decision makers with the principles and methods that will allow for more informed budget decisions as it relates to Cyber Security. First this class will review budgeting basics as well as the core of budgeting for Information Technology and Cyber Security. We will then examine Risk Management as a total program component of Cyber Security as well as applying it to the budgeting process. Finally this class will take a comprehensive approach to managing IT/IS projects from a risk management, budgeting, and procurement point of view.

**EHC 553 (Pad 553) – Topics in Homeland Security and Terrorism (4)**

This course examines an array of topics related to homeland security, terrorism, responses to terrorism, and the role of terrorism in public policy problems. Depending on the semester, the course will focus on a subset of issues in this field and may include both substantive and methodological topics relevant to the study of homeland security and terrorism. Course may be repeated with topic change.

**EHC 554 (Pad 554, Pos 554, Int 543) - Political Violence, Insurgency and Terrorism (4)**

This course examines the relationships among, and differences between the following activities in the international political system: political violence, insurgency, and terrorism. The course will include a consideration of the causes of these activities, their effects on national and international politics, and an evaluation of governmental responses to them.
EHC 555 (Pad 555) Disaster, Crisis and Emergency Management and Policy (4)
This course studies the policies, statutes, and priorities established by federal, state, and local governments to plan and prepare for emergencies, disasters, and catastrophic events caused by nature, technology, or humans. The course’s scope will include all mission areas established by the U.S. Department of Homeland Security and prioritized by the New York State Division of Homeland Security and Emergency Services as an example of State policies. The course will rely heavily upon primary source documents, and will involve simulations.

EHC 556 (Pad 556) Homeland Security Intelligence (4)
This course examines Homeland Security Intelligence at the Federal, State, and local levels. We begin with an overview of the US foreign intelligence community, its mission, history, structure, and capabilities. We examine how this community’s composition and structure have changed as its mission was fundamentally altered twice, first with the end of the Cold War and then with the rise of terrorism. Next, we look at the capabilities of new producers of terrorism related intelligence at federal law enforcement agencies and at the Department of Homeland Security. The main thrust of the course is intelligence at the State and local levels. The federal government has worked with the states to create significant intelligence capabilities outside the beltway since the events of 9/11/2001. This course identifies and discusses the State and local customers for homeland security intelligence and examines the degree to which these intelligence requirements are being met.

EHC 557 (Pad 557) Intelligence Analysis (4)
This course provides instruction in conducting intelligence analysis. After an overview of the history and structure of the US foreign intelligence community, we review the fundamentals of intelligence analysis tradecraft as practiced within the CIA and other federal intelligence agencies. Extensive time is devoted to learning and using structured analytic techniques through student-led analytic exercises on terrorism and major crimes.

EHC 558 (Pad 558, Int 542) Intelligence & US National Security Policymaking (4)
This seminar examines the role of intelligence in the formulation and implementation of US foreign policy. Through critical analysis and case studies, students will develop techniques to increase intelligence’s contribution to policy deliberations while ensuring that it does not prescribe policy. The course will assess the most appropriate role for the CIA and the Intelligence Community in supporting this executive branch process. After an overview of the CIA, its functions, structure, and capabilities. We review the US foreign policy process, key players, and institutional bias. The bulk of the course is devoted to a series of mock intelligence and policy meetings on the Bosnia, Kosovo, Afghanistan, and Iraq crises to critically analyze the CIA’s proper role in supporting the policy process.

EHC 559 (Pad 559) Homeland Security: Building Preparedness Capabilities (4)
The short but significant history of the creation of the U.S. Department of Homeland Security (DHS) will serve as the starting point for this course which will provide a comprehensive and functional approach to understanding this department and its role. The preponderance of time will be spent in developing an understanding of the nation’s effort, led by DHS to develop preparedness capabilities to prevent, protect from, respond to, and recover from high consequence events caused by acts of terrorism, natural disasters, and accidents. The course will rely heavily upon scenario-based activities and case studies to guide the student through the DHS maze and the nation’s preparedness efforts at the federal, state, and local levels.

**EHC 569 (Pad 569) Cyber Threats and Intelligence (4)**

Cyber threats are currently posed by state and non-state actors whose motivations include financial gain, notoriety, social activism, espionage and even revenge. This course will examine cyber threats from different angles to introduce students to today’s actors, motivations, tactics, techniques, and procedures (TTPs), and mitigation techniques, while providing insight into the impact of cyber crime on victim organizations and employees. A variety of case studies will be used to study how TTPs are applied, and aid students in understanding attack consequences, responding agency abilities, and the various protection, mitigation, and remediation measures. The course will also examine models of cyber activity, as well as how models from other fields can be applied to thinking about cyber threats. The objective of the course is to provide students with a foundation for leading their organization in prevention mitigation, and remediation of cyber attacks.

**EHC 571 (Pad 571) Military Forces in Support of Civil Authorities (4)**

This on-line course provides a comprehensive strategic level examination of the Homeland Security Enterprise and the methodology for integrating Federal and State military forces in support of civil authorities during the planning, training and response phases of emergency operations. Federal, State and Local civilian authorities are responsible for preparing for and responding to natural and man-made emergency incidents and disasters. Emergency managers often include military forces in their emergency management planning and training programs as necessary to support potentially overwhelmed civilian first-responders during an incident. This course examines various agencies associated with homeland security and focuses on specialized military forces mission support sets such as Weapons of Mass Destruction, Critical Infrastructure Protection and defense of the homeland.

**EHC 572 (Pad 572) Disaster and Crisis Management in the Public, Private, and Nonprofit Sectors (4)**

This course will examine how disaster and crisis management has evolved over time in the public, private, and nonprofit sectors. We begin by identifying key issues and challenges facing emergency managers and other crisis management professionals. We will then systematically examine the similarities and differences across the various sectors and analyze contemporary trends and common challenges, to include risk management, crisis communication and crisis leadership. Through the use of conceptual models and real-world case studies, we will further explore the application of theory and practice within the field. We will examine specific events, how organizations responded
to those events, and how those events changed and shaped the various organizations, and the discipline itself.

**EHC 589 (SPH 589) Emergency Preparedness: The Public Health Perspective (3)**

Preparedness planning has been an essential but often overlooked aspect of public health. Events of this decade have clarified the need for preparedness training around issues such as bioterrorism and have emphasized a new role for public health workers in community response activities. This course will serve as an introduction to the knowledge, skills and competencies needed by public health staff in being prepared for these new concerns. Prerequisites: Permission of instructor or Epi 501 and Eht 590.

**EHC 628 Leaders and Individual Assessment (3)**

This course provides a theoretical overview of approaches to the remote assessment of individuals, including psychobiography, motivations, leadership trait analysis, operational code, cognitive mapping, and integrative complexity, along with contextual influences on assessments and individual behavior, and methodological considerations. The major course project is an in-depth assessment of an individual using one or more of the approaches studied.

**EHC 629 Transnational Organized Crime (3)**

This class introduces the major ideas and problems associated with the study of international and transnational crime in the context of global politics. It will examine transnational criminal activities, illicit markets, those individuals and organizations involved in such crime, and how governments attempt to respond to and cope with such criminality. In order to understand the various phenomena that constitute transnational crime, there are both substantive and theoretical insights that are required. This course will pursue substantive knowledge of various illicit goods and industries, as well as the actors and organizations that take part in such "black market" trade. Besides examining the crimes themselves, and those engaged in them, this course will use certain theoretical perspectives to examine the dynamics that underpin and enable such activities, including concepts from organizational studies (like hierarchies and networks), the analysis of business and political economy ("the firm" and markets), and numerous concepts from political science (the salience of borders, sovereignty, globalization, and others). This course will also look closely at efforts by government and law enforcement agencies to respond to crime that does not respect traditional jurisdictional or national borders, often using some of the same theoretical insights that may help to illuminate the criminal side of this phenomenon. In addition it will examine how criminal activities impact states and governments negatively, including through funding insurgencies and instability, drawing states into conflicts, and weakening state control. It is increasingly hard to understand global politics without understanding the dark underside of globalization. This course will offer substantive insights and theoretical insights to help students examine the "other" global economy.
COURSE FREQUENCY

M.S.I.S. “core” courses are offered every fall and spring semester, with some occasionally offered during the summer, and the internship is available spring, summer and fall semesters. Each concentration in the M.S.I.S. program offers some choice in course selection (elective credit).

Students should consult with a faculty advisor to develop a plan of study which includes appropriate electives; these may be CIST courses or graduate courses from other academic units. Students in any M.S.I.S. concentration may use courses required in a different concentration as elective credit or may select other electives following a specific interest or career goal. While general and concentration requirements are offered every semester or annually, some electives may be offered only occasionally. Listed below are M.S.I.S. concentration and elective courses and approximate frequency of scheduling. Courses marked with an asterisk are required for that concentration. All other courses are suggestions and not formal requirements. Full course descriptions appear elsewhere in this Handbook or can be found on the Graduate Bulletin course index website. The course frequency below is subject to change as needed.

CONCENTRATIONS

Archives and Records Administration
CIST 538 Fundamentals of XML  Generally Offered: Summer
CIST 546 Fundamentals of Records Management*  Fall
CIST 547 Electronics Records Management*  Spring
CIST 654 Preservation Management in Archives and Libraries*  varies
CIST 655 Rare Books  Summer
CIST 656 Archives and Manuscripts*

Data Analytics
IST 506 (formerly 658) Database Systems and Data Analysis  Fall
INF 624 Predictive Modeling  Spring

Intelligence Analysis
EHC 557 (PAD) Intelligence Analysis  Fall
IST 667 Intelligence Analysis Research Seminar/Thesis  Fall/Spring

Information Technology Management
CIST 560 Information and Public Policy*  Fall
CIST 636 Systems Analysis in the Information Environment*  varies

Information Systems and Technology
CIST 533 Information Storage and Retrieval*  Fall
CIST 611 Information Systems*  Fall
CIST 636 System Analysis in the Information Environment*  Spring

Library and Information Services
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term</th>
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</thead>
<tbody>
<tr>
<td>CIST 603</td>
<td>Information Processing*</td>
<td>Spring/Summer</td>
</tr>
<tr>
<td>CIST 605</td>
<td>Information Sources and Services*</td>
<td>Spring</td>
</tr>
<tr>
<td>CIST 571</td>
<td>Literature for Children*</td>
<td>Fall</td>
</tr>
<tr>
<td>CIST 578</td>
<td>Literature for Young Adults*</td>
<td>Spring</td>
</tr>
<tr>
<td>CIST 605</td>
<td>Information Sources and Services*</td>
<td>Spring</td>
</tr>
<tr>
<td>CIST 668</td>
<td>Internship*</td>
<td>Fall/Spring</td>
</tr>
<tr>
<td>CIST 670</td>
<td>Teaching Fundamentals for School Libraries</td>
<td>Fall/Spring</td>
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<tr>
<td>CIST 673</td>
<td>School Libraries: Theory, Practice and Assessment*</td>
<td>Fall/Spring</td>
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<tr>
<td>CIST 675</td>
<td>Curriculum and Supportive Resources*</td>
<td>Fall/Spring</td>
</tr>
<tr>
<td>CIST 676</td>
<td>Administration of School Media Centers*</td>
<td>Spring</td>
</tr>
<tr>
<td>CIST 677</td>
<td>Creating Innovators: The Maker Movement</td>
<td>Summer</td>
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**SPECIALIZATION AREAS – SUGGESTED ELECTIVES:**

### Academic Libraries (College and University)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term</th>
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<tbody>
<tr>
<td>CIST 606</td>
<td>Collection Development and Management</td>
<td>Fall</td>
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<tr>
<td>CIST 617</td>
<td>Academic Libraries</td>
<td>Fall</td>
</tr>
<tr>
<td>CIST 649</td>
<td>Information Literacy Instruction</td>
<td>Summer</td>
</tr>
<tr>
<td>CIST 656</td>
<td>Archives and Manuscripts</td>
<td>Fall</td>
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### Emergency Preparedness, Homeland Security, and Cybersecurity

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term</th>
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<tbody>
<tr>
<td>EHC 545 (Pad 545)</td>
<td>Principles and Practices of Cyber Security</td>
<td>Fall</td>
</tr>
<tr>
<td>EHC 546 (Pad 546)</td>
<td>Homeland Security Risk Analysis and Risk Management</td>
<td>Spring</td>
</tr>
<tr>
<td>EHC 549 (Pad 549)</td>
<td>Cyber Security: Long Term Planning and Risk Management</td>
<td>Fall</td>
</tr>
<tr>
<td>EHC 552 (Course Information is still unavailable)</td>
<td>Topics in Homeland Security and Terrorism</td>
<td>Spring</td>
</tr>
<tr>
<td>EHC 553 (Pad 553)</td>
<td>Political Violence, Insurgency and Terrorism</td>
<td>Fall</td>
</tr>
<tr>
<td>EHC 554 (Pad 554)</td>
<td>Disaster, Crisis, and Emergency Management and Policy</td>
<td>Fall</td>
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<tr>
<td>EHC 555 (Pad 555)</td>
<td>Homeland Security Intelligence</td>
<td>Fall</td>
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<tr>
<td>EHC 556 (Pad 556)</td>
<td>Intelligence Analysis</td>
<td>Fall/Spring</td>
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<tr>
<td>EHC 557 (Pad 557)</td>
<td>Intelligence &amp; US National Security Policymaking</td>
<td>Spring</td>
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<tr>
<td>EHC 559 (Pad 559)</td>
<td>Homeland Security: Building Preparedness Capabilities</td>
<td>Fall</td>
</tr>
<tr>
<td>EHC 571 (Pad 571)</td>
<td>Military Forces in Support of Civil Authorities</td>
<td>Fall</td>
</tr>
<tr>
<td>EHC 572 (Pad 572)</td>
<td>Disaster and Crisis Management in the Public, Private, and Nonprofit Sectors</td>
<td>Fall</td>
</tr>
<tr>
<td>EHC 589</td>
<td>Emergency Preparedness: The Public Health Perspective</td>
<td>Spring</td>
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<tr>
<td>EHC 596 (Details still unavailable)</td>
<td></td>
<td>Spring</td>
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<tr>
<td>EHC 628</td>
<td>Leaders and Individual Assessment</td>
<td>Spring</td>
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<tr>
<td>EHC 629</td>
<td>Transnational Organized Crime</td>
<td>Fall</td>
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### Public Library Services

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CIST 560</td>
<td>Information and Public Policy</td>
<td>Fall</td>
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</table>
CIST 561  Web Design and Development  Fall
CIST 571  Literature for Children  Fall
CIST 578  Literature for Young Adults  Spring
CIST 606  Collection Development and Management  Fall
CIST 618  Public Libraries  Spring
CIST 677  Creating Innovators: The Maker Movement  Summer

Reference and Information Services
CIST 557  Introduction to Legal Research  Spring
CIST 560  Information and Public Policy  Fall
CIST 561  Web Design and Development  Fall/Spring
CIST 606  Collection Development and Management  Fall

Special Libraries
CIST 546  Fundamentals of Records Management  Fall
CIST 557  Introduction to Legal Research  Spring
CIST 560  Information and Public Policy  Fall
CIST 561  Web Design and Development  Fall

Technology Electives
CIST 535  Web Database Programming  Fall
CIST 538  Fundamentals of XML  Summer
CIST 561  Web Design and Development  Fall
CIST 666  Various topics  Occasionally

Youth and Children’s Services
Students wishing to prepare for a career in youth services in public libraries are advised to include the following courses in their preparation:
CIST 561  Web Design and Development  Fall
CIST 571  Literature for Children  Fall
CIST 573  History of Children’s Literature  Infrequently
CIST 578  Literature for Young Adults  Spring
CIST 677: Creating Innovators: The Maker Movement  Summer

Curriculum and Assessment
CIST 670  Teaching Fundamentals for School Libraries  Fall/Spring
CIST 673  School Libraries: Theory, Practice, and Assessment  Fall/Spring
CIST 675  Curriculum and Supportive Resources*  Fall/Spring

ADVISEMENT

You will be assigned a faculty advisor upon your acceptance to the program. You must contact your advisor (there is a listing of professors’ offices, phone numbers, and e-mail addresses at the back of this handbook) prior to registration each semester. If you change your concentration and feel your needs would be better met by a different advisor, contact the Dean’s Office.
RESIDENT STUDY REQUIREMENTS

Resident graduate study is defined to be graduate study provided via University at Albany faculty instruction, not necessarily physically on-campus. Unless otherwise specified as part of the State approval/registration of a specific program, the minimum number of credits of resident graduate study beyond the baccalaureate established for award of a University at Albany graduate degree or certificate are:

- For graduate programs requiring 48 or more graduate credits, at least 50% of the total credits must be completed through University at Albany study.
- For graduate programs requiring 27 – 47 graduate credits, at least 24 of the credits must be completed through University at Albany study.
- For graduate programs requiring 26 or fewer graduate credits, all but a maximum of 3 credits must be completed through University at Albany study.

In programs of variable credit, with potential course waivers addressed on an individual basis, the above minimum standards shall apply to the net program requirements after any waivers are approved and applied.

Individual graduate programs may require greater levels of resident study than the minimums defined above.

Credit Applicable to Programs at the Same Degree/Certificate Level

Subject to Resident Study Requirements as defined above, no more than 30% of the graduate program credits required in one pursued (or concurrently pursued) graduate degree or certificate program shall be accepted/applied from an initial program at that same credential level.

TRANSFER CREDIT REGULATIONS

1. Courses completed before entering graduate study at this University for which transfer credit is desired should be presented to the program faculty for consideration upon admission.
2. Candidates in graduate programs at this University are requested to receive the approval of their advisors or of the Dean of The Graduate School before registering for courses at other colleges if they plan later to present them for transfer credit.
3. Courses presented must be appropriate to the student's graduate program.
4. Courses presented must have been given by an accredited institution authorized to grant graduate degrees.
5. Courses presented must be graduate courses, that is, applicable to a graduate degree at the institution offering them.
6. Graduate courses presented for transfer credit completed while the student was in undergraduate status shall be eligible for transfer only upon receipt of
documentation from the institution certifying that such course work was not used to fulfill undergraduate degree requirements at that institution.

7. Courses presented must be completed with grades of B or better.

8. Unless submitted as part of the application for program admission, an official transcript of the student’s record in the course(s) presented for transfer credit should be sent to The Graduate School, State University of New York at Albany, 1400 Washington Avenue, Albany, New York 12222.

9. An official description of the course(s) should accompany the request for transfer credit.

10. Courses accepted for transfer credit are not used in computing the student's academic average.

11. Requirements for the satisfactory completion of research seminars, theses, field courses, clinical courses, student teaching, internships and practicums may not be satisfied by courses taken at other institutions, and they are not eligible for transfer credit for these purposes.

12. Subject to Resident Study Requirements as defined above, no more than 30% of the graduate program credits required in one pursued (or concurrently pursued) graduate degree or certificate program shall be accepted/applied from an initial program at that same credential level.

13. If a graduate program requires an earned master's degree as an application requirement (from a regionally accredited institution of higher education or from an institution authorized by the Board of Regents to confer degrees), transfer credit cannot be granted from that master's program into a University at Albany graduate program. Such master’s credits are considered preparatory for entry into the graduate program and therefore cannot additionally be used to satisfy curricular requirements for that graduate program. Prior graduates of University at Albany master's degree programs who have taken coursework included in the newly admitted graduate program curriculum as part of the earned master’s used for admission will need to register for more advanced coursework to fulfill the curricular requirements.

**WAIVER OF REQUIRED COURSES**

If you have completed courses that are similar to the required courses in the M.S.I.S. program, you may be able to waive one or more of these courses. You will need a detailed course description and/or syllabus along with a completed Application for Exemption from Degree or Track Requirements form, which is available in the Dean’s Office. Students need to consult with their advisors before making such requests, which are subject to the Dean’s Office approval.

Courses to be considered for waiver should be fairly recent course work. Please note that a waiver of a required course does not constitute a credit waiver, and thus does not alter the number of credits required for your degree.
ONLINE CLASS REGISTRATION

MyUAlbany is the University’s self-service portal used by students to complete academic, financial, and campus involvement activities. Class enrollment is completed online within MyUAlbany. Prior to beginning the enrollment process each semester, you will meet with your advisor to obtain your AVN or Advisor Certification Number, and plan your class schedule. In addition to your AVN, you will need to know the Class Number of each course you wish to complete during the semester before beginning the online class enrollment process.

**Step 1: Activate your UAlbany computing account to set a password and obtain your NetID.**

- Activating your computing account enables access to the University’s IT resources with your NetID and password.
- NOTE: You may have completed this process upon notification of being accepted to the MSIS program. If you know your UAlbany NetID and password, then skip to Step 2.
- Instructions on how to set or reset password and obtain NetID can be found at https://wiki.albany.edu/x/r4NB

**Step 2: Login to the MyUAlbany portal using your UAlbany NetID and password.**

- Go to www.albany.edu/myualbany and select "STUDENT LOG ON." Enter your NetID and password. Click "Login." You have now accessed the MyUAlbany portal where you will complete the class enrollment process.
- Reminder: Always "Sign Out" and close all browser windows when you have finished a session using MyUAlbany to protect the privacy of your information.
- Need help with MyUAlbany log on process? Troubleshooting tips can be found at https://wiki.albany.edu/x/8wRm
- Student Tutorials about MyUAlbany and the features most often used by students can be found at www.albany.edu/myualbany

**Step 3: How to Register for Classes**

- Log on to MyUAlbany, select the Academics tab and complete the “Steps to Enroll”.
- Select “Enter My AVN”. Enter your Advisor Verification Number next to the appropriate semester for which you are registering and click ‘Save’.
- Return to Academics page and select “Enroll, Add, or Drop Classes”
- Select the correct semester and click “Continue”
- Within the ‘Select classes to add’ screen, enter the class number and click “Enter”.
- Course name and meeting times will appear.
- If required, enter the class permission number in the “Permission Nbr” field. Permission numbers are obtained from the class instructor or the DIS Office.
• Select “Next” and the course will appear in your “shopping cart.”
• Continue with the add course process until you have a schedule of classes.
• Select “Finish Enrolling” to complete the registration process.
• Courses labeled with green check indicate successful enrollment. A red “X” indicates that an error occurred.
• Once you are successfully enrolled in classes, you can view your class schedule.
UNIVERSITY SERVICES AND DEPARTMENTS

LIBRARY SERVICES  http://library.albany.edu/
The University at Albany has three libraries: the Main Library and the Science Library on the uptown campus, and the Dewey Library on the downtown campus. You will most likely find most of what you need for classes at the Dewey Library. Each library has a self-guided tour, which should be available in the library lobbies or at the reference desks. There are many library orientation sessions offered at the beginning of the semester to introduce you to library services, and they also offer numerous classes throughout the semester that can help you learn to use the libraries’ electronic resources. For full information about these classes, consult the library web page or ask at the reference desk; there is usually a posting of upcoming classes in the lobby.

Dr. Carol Anne Germain is the Subject Librarian for the Information Science programs. She can be reached at cgermain@albany.edu.

INFORMATION TECHNOLOGY SERVICES (ITS)  http://www.albany.edu/its
Students at the University have access to a wide range of computing products and services in support of their academic endeavors. Information Technology Services supports the following IT resources:
- MyUAlbany: Self-service portal used by students, faculty and staff
- Blackboard: Course management system used by instructors and students for the delivery of online instruction and other class activities
- UAlbany Mail: University's e-mail service with access to calendaring and global address list
- Information Commons: Located in the University Libraries (uptown and downtown), where computers (installed with Microsoft Office and a suite of academic software) and printing services are available
- Virtual Information Commons: Offering internet access to University-licensed software
- Wireless service on campus
- S Drive: Used for storing personal files and web pages
- Sponsored Services for student groups under the guidance of a University faculty or staff member:
  - Classroom Technology Support
  - LISTSERV for using email to communicate with groups of people sharing topics of common interest
  - Video Conferencing
  - Wikis for communication and collaboration concerning University-related activities
- Non-credit workshops: Available for Microsoft Office products, various web and graphics packages, and select administrative applications.
• In addition to the ITS website, the askIT wiki contains answers to common questions and has information about IT resources at UAlbany

HelpDesk support for students
• Walk-up Location: University Library (Uptown); Husted 002 (Downtown)
• Call Center: 518-442-3700
• Online Service Desk: http://www.albany.edu/its/help
• When classes are in session during the fall and spring semesters, a Tech Help student consultant is available in the Information Commons.

DOWNTOWN CAMPUS INFORMATION SCIENCE COMPUTER FACILITY
Information Science students may take advantage of free printing and computer access from GSA, located in the Draper Hall student lounge on the first floor of Draper Hall, 101. Stop by the CEHC Dean’s Office, or email CEHC@albany.edu, to receive the key code. Any issues that may occur with the computing equipment located in the student lounge should be reported to the Dean’s Office.

ADDITIONAL INFORMATION ABOUT TECHNOLOGY USE
• Personal Computing Equipment
• Students can purchase software for personal use at discounted prices from e-Academy
• Log on to MyUAlbany and use the link provided within the “Technology Discounts” section
• You are responsible for maintaining your personal computing equipment. It is recommended that you purchase a service contract or extended warranty for personally-owned equipment. You will need to contact a vendor if your computer requires support (i.e. software, hardware or operating system issue.)
• Residential Student Technical Help: 518-442-4588
• If you live on campus, report problems with red phone and jacks in rooms, or obtain help with using Apogee wired/wireless internet service used in the residences.

Reminder from the ITS Department: “The University at Albany will never ask you to reveal your password. You should ignore any email message asking for your password, no matter who the sender claims to be or the reason given for the message.” You should see this message at the bottom of any correspondence from the ITS Office.
EMPLOYMENT OPPORTUNITIES

Currently, the Manager of Graduate Studies receives numerous job notices from employers around the country including academic, government, corporate, public, school and special libraries, and archives. Job bulletins from other information science programs, announcements from several professional associations, and information regarding various types of financial aid, such as temporary and part-time student jobs, scholarships, grants, fellowships, and travel awards to attend conferences are also regularly received. Summaries of these announcements are posted regularly on the M.S.I.S. employment listserv, ISTJOBS. Internships, Graduate Assistantships, and opportunities for current students are shared on the IST-L listerv. For directions on how to subscribe to IST-L and ISTJOBS, please refer to Email Accounts, IST-L and ISTJOBS.

In addition to these services, you should also refer to career development resources available on the World Wide Web. One excellent source is the American Library Association’s JobList where employers and jobseekers can find opportunities to meet, network, and find information on employment and professional development. Many other library schools have job announcement websites and listservs. Local and regional newspapers, professional associations’ job publications, and most importantly, personal contact with professionals are also excellent sources for job information. The department also highly recommends that you check the following sources located in the Dewey Library: Library Journal, American Libraries, The Chronicle of Higher Education, The New York Times, and Special Library Association’s The Special List. School Librarians are encouraged to visit the OLAS - the Online Application System for K-12 Education.

The University’s Career and Professional Development Office provides information and resources for current students and recent alumni.
EMAIL ACCOUNTS: IST-L AND ISTJOBS

UNIVERSITY EMAIL ACCOUNT
A student’s email account is activated by completing the Password Set/Reset process. You may have already completed this process to obtain your NetID and set a password for access to MyUAlbany. If you have not completed this process, view instructions on the ITS Service Desk askIT page.

- Access to UAlbany Mail can be found within the MyUAlbany portal and by using the ‘UAlbany Mail’ links posted on the web pages at www.albany.edu/myualbany and www.albany.edu/its.
- Your email address is automatically created based on your first initial and last name followed by @albany.edu.
- When another student or employee has a similar name, the mail alias may contain a number or middle initial.
- If you do not know your University email address, log on to MyUAlbany and go to Other Links > Email Address.
- The University uses e-mail sent to your @albany.edu address as its official method of communication with students.
- The askIT article, Instructions for getting started with using UAlbany Mail, explains how to configure mail clients and mobile devices to receive messages from your UAlbany Mail mailbox.
- Students retain access and use of their UAlbany e-mail account until two semesters after their last semester of enrollment at the University.

Communication among faculty and students in the Department of Information Science takes place primarily through the department's listserv "IST-L." All students should have either a University at Albany e-mail account or a commercial personal e-mail account. Students who are matriculated in any Information Science graduate program (including Non-degree students) are automatically added to the IST-L listserv. ALL STUDENTS SHOULD CONFIRM THEIR SUBSCRIPTION TO IST-L TO BE SURE THAT THEY WILL GET IMPORTANT INFORMATION ABOUT REQUIREMENTS AND ACTIVITIES. For those interested in receiving job postings that are sent to the department office weekly, the listserv “ISTJOBS” has been established. You may subscribe to IST-L or ISTJOBS using any on-campus or off-campus email account. You do not have to be an Information Science student or faculty member to subscribe.

SUBSCRIBING TO IST-L
1. Log on to your e-mail account.
2. Compose a message to: listserv@listserv.albany.edu
3. For the message, type: Subscribe IST-L your name (e.g. Melvil Dewey) to subscribe to IST-L. To subscribe to ISTJOBS, replace IST-L with ISTJOBS.
4. **NOTE**: You cannot subscribe to both listservs in the same email message. Each subscription requires its own email message.
5. Send message. You will receive an email message confirming your subscription.

**POSTING TO IST-L or ISTJOBS**

1. To post a message to IST-L, send the email to: **IST-l@listserv.albany.edu**
2. To post a message to ISTJOBS, send it to: **ISTjobs@listserv.albany.edu**
3. Enter the message text.

Helpful hint: When responding to a message posted to IST-L or ISTJOBS, be sure to check the reply address in your message. At times, by pressing the reply button, your message is addressed to everyone that is subscribed to the listserv. You may avoid this embarrassment by double-checking your email before pressing send!

**HOW TO RECEIVE EMAIL IN DIGEST FORM**

If you would prefer to receive one daily email with individual job postings attached to it, you may want to sign up to receive your mail in digest form.

1. From the email account that is subscribed to IST-L or ISTJOBS, compose a message to: **listserv@listserv.albany.edu**
2. Leave the subject line **blank**.
3. For the message, type: **set ist-l digest** or **set istjobs digest**.
4. Send message. You will receive an email confirming your subscription in digest form.

**HOW TO UNSUBSCRIBE**

1. From the email account that is subscribed to IST-L or ISTJOBS, compose a message to: **listserv@listserv.albany.edu**
2. For the message, type: **SIGNOFF IST-L** or **SIGNOFF ISTJOBS**
PROFESSIONAL ORGANIZATIONS

All students in the IS program are encouraged to join at least one professional association while they are still in school. Participation in a professional organization gives students a chance to learn about career paths they are considering and to become familiar with current problems and trends in the field. There are reductions in membership dues available to student members (often extending into the first year of regular membership), and members may also make use of the association’s recruiting services to assist in job placement.

The choice of possible organizations can be confusing—there are associations for almost every specialization in the field. For those who prefer to get their first taste of professional involvement at the local level, there are also regional chapters of most of these associations. Meeting with experienced colleagues, attending meetings and (eventually) serving on committees and helping to plan programs will undoubtedly assist with your career prospects and professional opportunities on a long-term basis.

*In addition to the Divisions listed, ALA and NYLA both offer numerous Round Tables. To be a member of a Round Table you must also be a member of the larger organization.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Student Membership Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>American Association of Law Libraries (AALL)</strong></td>
<td>$65</td>
</tr>
<tr>
<td><a href="http://www.aallnet.org">http://www.aallnet.org</a></td>
<td></td>
</tr>
<tr>
<td>Special Interest Section Membership</td>
<td></td>
</tr>
<tr>
<td>Law Library Journal</td>
<td></td>
</tr>
<tr>
<td>AALL Newsletter</td>
<td></td>
</tr>
<tr>
<td><strong>American Library Association (ALA)</strong></td>
<td>$39</td>
</tr>
<tr>
<td><a href="http://www.ala.org">http://www.ala.org</a></td>
<td></td>
</tr>
<tr>
<td>American Association of School Librarians (AASL)</td>
<td>$75</td>
</tr>
<tr>
<td>Association for Library Trustees, Advocates, Friends and Foundations (ALTAFF)</td>
<td>$20 (if in ALA)</td>
</tr>
<tr>
<td></td>
<td>$55 (if not)</td>
</tr>
<tr>
<td>Association for Library Collections &amp; Technical Services (ALCTS)</td>
<td>$15</td>
</tr>
<tr>
<td>Association for Library Service to Children (ALSC)</td>
<td>$20</td>
</tr>
<tr>
<td>Young Adult Library Services Division (YALSA)</td>
<td>$27</td>
</tr>
<tr>
<td>Association of College &amp; Research Libraries (ACRL)</td>
<td>$55</td>
</tr>
<tr>
<td>Eastern New York/ACRL <a href="http://enyacrl.org/site/">http://enyacrl.org/site/</a></td>
<td>$12 (if in ACRL)</td>
</tr>
<tr>
<td></td>
<td>$15 (if not)</td>
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<tr>
<td>Association of Specialized, Government, &amp; Cooperative Library Agencies (ASGCLA)</td>
<td>Part of ALA</td>
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<tr>
<td>Library Leadership and Management Association (LLAMA)</td>
<td>$15</td>
</tr>
<tr>
<td>Library and Information Technology Association (LITA)</td>
<td>$25</td>
</tr>
<tr>
<td>Public Library Association (PLA)</td>
<td>$33</td>
</tr>
<tr>
<td>Organization</td>
<td>Membership Fee</td>
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<tr>
<td>------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Reference and Users Services Association (RUSA)</td>
<td>Part of ALA</td>
</tr>
<tr>
<td>American Society for Information Science and Technology (ASIST)</td>
<td>$40</td>
</tr>
<tr>
<td><a href="https://www.asist.org/">https://www.asist.org/</a></td>
<td></td>
</tr>
<tr>
<td>Many special interest groups available: Arts &amp; Humanities; Computerized Retrieval Services; Information Analysis &amp; Evaluation; etc.</td>
<td></td>
</tr>
<tr>
<td>New York Library Association (NYLA)</td>
<td>$15</td>
</tr>
<tr>
<td><a href="http://www.nyla.org">http://www.nyla.org</a></td>
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</tr>
<tr>
<td>Joint ALA/NYLA membership</td>
<td>$35</td>
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<tr>
<td>Academic &amp; Special Libraries Section (ASLS)</td>
<td></td>
</tr>
<tr>
<td>Reference &amp; Adult Service Section (RSS)</td>
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<tr>
<td>Section of School Librarians (SSL)</td>
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<tr>
<td>Public Libraries Section (PLS)</td>
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<tr>
<td>Youth Services Section (YSS)</td>
<td></td>
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<tr>
<td>Section of Management of Information Resources &amp; Technology (SMART)</td>
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</tr>
<tr>
<td>Leadership &amp; Management Section (LAMS)</td>
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</tr>
<tr>
<td>Mid-Atlantic Regional Archives Conference (MARAC)</td>
<td>$20</td>
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<tr>
<td>Capital Area Archivists (CAA)</td>
<td>$5</td>
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<tr>
<td><a href="https://www.capitalarchivist.org/caa/">https://www.capitalarchivist.org/caa/</a></td>
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</tr>
<tr>
<td>American Society for Indexing (ASI)</td>
<td>$199</td>
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<tr>
<td><a href="http://www.asindexing.org">http://www.asindexing.org</a></td>
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</tr>
<tr>
<td>Art Libraries Society of North America (ARLIS/NA)</td>
<td>$50</td>
</tr>
<tr>
<td>Association for Information Management Professionals (ARMA)</td>
<td>$25</td>
</tr>
<tr>
<td><a href="http://www.arma.org">http://www.arma.org</a></td>
<td></td>
</tr>
<tr>
<td>Medical Library Association (MLA)</td>
<td>$50</td>
</tr>
<tr>
<td><a href="http://www.mlanet.org">http://www.mlanet.org</a></td>
<td></td>
</tr>
<tr>
<td>Music Library Association (MLA)</td>
<td>$65</td>
</tr>
<tr>
<td><a href="http://www.musiclibraryassoc.org">http://www.musiclibraryassoc.org</a></td>
<td></td>
</tr>
<tr>
<td>Society of American Archivists (SAA)</td>
<td>$55</td>
</tr>
<tr>
<td>New England Archivists</td>
<td>$17.50</td>
</tr>
<tr>
<td><a href="http://www.newenglandarchivists.org">http://www.newenglandarchivists.org</a></td>
<td></td>
</tr>
<tr>
<td>Special Libraries Association (SLA)</td>
<td>$50</td>
</tr>
<tr>
<td><a href="http://www.sla.org">http://www.sla.org</a></td>
<td></td>
</tr>
<tr>
<td>Each SLA membership includes membership in one chapter and one division. Chapters bring together information professionals where they work and live; divisions bring together those who practice in a unique</td>
<td></td>
</tr>
</tbody>
</table>
discipline of special librarianship. For an optional nominal fee, members may join additional chapters and divisions as well as caucuses (an informal network of discipline or interest not covered in other divisions).

INFORMATION SCIENCE STUDENT ASSOCIATION (ISSA)

The Student Association promotes effective communication between the students in the department and acts as a liaison between the student body and the faculty. All students in the department are considered members of the Information Science Student Association. Any student with an interest in the organization is invited to attend meetings, announced regularly on IST-L. ISSA also plans events for the department, and participation and help are encouraged from all students. Comments and suggestions are also welcome.

ISSA has a seat at the CEHC faculty meetings. Student representatives at faculty meetings report on the proceedings to the Student Association at its regular meetings. Student reps are free to ask questions or make comments. At times faculty members, in discussing matters that will directly affect the student body, ask the student reps what they think the student response would be to certain proposals or will inquire about their personal reactions, to be construed as typical of their peers’ attitudes. Faculty meetings are held about once a month and generally last about two hours.

UNIVERSITY OFFICES AND TELEPHONE NUMBERS

<table>
<thead>
<tr>
<th>University Offices and Services</th>
<th>Phone Number (518 area code)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Computing (IT) Help Desk Services</td>
<td>442-3700</td>
</tr>
<tr>
<td>Admissions, Graduate / Undergraduate</td>
<td>442-3980 / 442-5435</td>
</tr>
<tr>
<td>Bookstores</td>
<td>Campus Center: 442-5690 (Fax: 442-5685)</td>
</tr>
<tr>
<td></td>
<td>Mary Jane Books: 465-2238</td>
</tr>
<tr>
<td>Financial Aid, Office of (CC G26)</td>
<td>442-3202</td>
</tr>
<tr>
<td>Health Center, University</td>
<td>442-5454</td>
</tr>
<tr>
<td>Housing, On-Campus (Residential Life &amp; Housing)</td>
<td>442-5875</td>
</tr>
<tr>
<td>Library</td>
<td>Main: 442-3600</td>
</tr>
<tr>
<td></td>
<td>Dewey (Downtown Campus): 442-3691</td>
</tr>
<tr>
<td>Parking Management (Public Safety Bldg.)</td>
<td>442-3121</td>
</tr>
<tr>
<td>Police, Campus</td>
<td>Non-Emergency: 442-3130</td>
</tr>
<tr>
<td></td>
<td>Emergency: 442-3131 or 911</td>
</tr>
<tr>
<td>Service</td>
<td>Phone Number</td>
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<tr>
<td>Security (Husted Lobby)</td>
<td>442-5981</td>
</tr>
<tr>
<td>Registrar's Office (CC B52)</td>
<td>442-5540</td>
</tr>
<tr>
<td>Student Accounts (CC G26)</td>
<td>442-3202</td>
</tr>
<tr>
<td>SUNYCard Office (CC B52)</td>
<td>442-5989</td>
</tr>
<tr>
<td>University Switchboard</td>
<td>442-3300</td>
</tr>
</tbody>
</table>