In addition to the courses listed in the requirement areas, the various departments and programs occasionally offer new courses and courses on specific topics that may meet area requirements, especially when they are taught by CERIAS principals and fellows. These include TECH 621 (when taught by Prof. Dark), CNIT 623 and 499 (Prof. Taylor), CNIT 581, LING 689 (Prof. Raskin), some CS 590 offerings, and others. The INSC program administration will announce such courses when they are available, but students are welcome to ask about any courses that might not be otherwise listed."

Courses are not taught every semester so your plan of study should take this into account.

Area A. Core Courses
--- CS 52600 Information Security or C&IT 55500 Advanced Network Security
--- CS 55500 Cryptography
--- PHIL 52400 Contemporary Ethical Theory or PHIL 58000† Contemporary Computer Tech Problems
--- POL 62000† Proseminar in Public Policy or TECH 62100 Information Assurance Ethics
--- LING 69800 Research MA Thesis (for the thesis option only)

Area B. Recommended Courses
LING 68900 Natural Language Process (ECE 66900)

One of the following courses:
LING 52100 Syntax I: Syntactic Analysis
LING 53100 Semantics: Lexical And Sentential Semantics

--SFS Students must take Applied Research Problems in National Information Security TECH 58100

One of the following courses:
AGEC 60800 Benefit-Cost Analysis
69100† Research in Agricultural Economics
AT 53200 Contemporary Issues in Transportation Sec 59000† Topics In Computer Sciences
CNIT 42100 Small Scale Digital Device Forensics 62600 Advanced Information Assurance
45500 Network Security 63800 Internetworking
45600 Wireless Network Security & Management 65500 Advanced Cryptology
49900† Topics in Computer and Info Technology 61000 Advanced Game Theory
51100 Foundations in Homeland Security CSR 63100 Consumer Behavior Theory
51200 Managing Resources and Applications for Homeland Security ECE 56500 Computer Architecture
55600 Basic Computer Forensics ECET 52500 Applications in Forensic Engineering Tech
55700 Advanced Cyberforensics ECON 60600 Microeconomic Theory I
55800 Bioinformatics Computing And Systems 61000 Advanced Game Theory
Integration ENE 69500 Adv Topics in Engineering Education
58100† Workshop in Computer Technology IE 53000 Quality Control
Prob in Natl Info Security 53200 Reliability
Cyberforensics of Malware 57700§ Human Factors in Engineering
Cyberforensics Apple Eco Syst 65900 Human Aspects of Computing
Homeland Security Seminar 67400 Computer And Communication Methods For
Homeland Security Seminar Production Control
62300† Contemporary Computer Tech Problems IT 53000 Biometric Tech Test Design, Performance, And Evaluation
Nat Lang Info Assur & Sec Sem

COM 55900 Current Trends in Mass Comm Research 54000 Biometric Performance and Usability Analysis
59000† Directed Study of Special Problems 54500 Biometrics Technology And Applications
63200† Seminar: Special Topics In Mass Comm 58100† Biometric Data Analysis
CS 50300 Operating Systems LING 59300† Special Topics in Semantics
52700 Software Security 68900† Seminar in Linguistics
52800 Network Security MGMT 54700§ Computer Communication Systems
53600§ Data Communication and Computer Networks 59000† Directed Readings In Management
56500 Programming Languages Design: Soc Networks & Engmts

68400 Information Security for Managers
68100 Behavior Organization

Last Revised: 1/11/16
Area C. Elective Courses
Any two of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CNIT 58100†</td>
<td>Workshop in Computer Technology</td>
<td>MGMT 50500</td>
<td>Management Accounting II</td>
</tr>
<tr>
<td>CS 50200</td>
<td>Compiling and Programming Systems</td>
<td>50600</td>
<td>Auditing</td>
</tr>
<tr>
<td>54100</td>
<td>Database Systems</td>
<td>54400</td>
<td>Database Management Systems</td>
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<tr>
<td>54200</td>
<td>Distributed Database Systems</td>
<td>54500</td>
<td>Systems Development</td>
</tr>
<tr>
<td>57300</td>
<td>Data Mining</td>
<td>56100</td>
<td>Logistics</td>
</tr>
<tr>
<td>ECE 54400</td>
<td>Digital Communications</td>
<td>59000†</td>
<td>Directed Readings In Management</td>
</tr>
<tr>
<td>56200</td>
<td>Introduction to Data Management</td>
<td>60000</td>
<td>Accounting for Managers</td>
</tr>
<tr>
<td>56500</td>
<td>Computer Architecture</td>
<td>60100</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>57000</td>
<td>Artificial Intelligence</td>
<td>63000</td>
<td>Legal and Social Foundations of Management</td>
</tr>
<tr>
<td>57300</td>
<td>Compilers And Translator Writing Systems</td>
<td>68300</td>
<td>Principles Of Information Systems</td>
</tr>
<tr>
<td>ECET 58100†</td>
<td>Selected Topics in Sensors</td>
<td>OBHR 64200</td>
<td>Compensation And Reward Systems I</td>
</tr>
<tr>
<td>FNR 55800</td>
<td>Digital Remote Sensing and GIS</td>
<td>64300</td>
<td>Compensation And Reward Systems II</td>
</tr>
<tr>
<td>LING 50000</td>
<td>Introduction to Linguistics</td>
<td>POL 62200</td>
<td>Research Seminar In Public Policy And Public Administration</td>
</tr>
<tr>
<td>53100</td>
<td>Semantics I: Lexical And Sentential Semantics</td>
<td>STAT 69500†</td>
<td>Seminar in Mathematical Statistics</td>
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<tr>
<td>68900†</td>
<td>Seminar in Linguistics</td>
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</tbody>
</table>

Courses from at least three different graduate programs should be taken between Areas B and C. Other courses, often under variable numbers and offered on a one-time or occasional basis, may be of interest. Students are encouraged to bring those courses to the attention of their advisors, who may recommend these to other students and approve the substitution of these courses for some courses listed above.

Under the thesis option, the master’s thesis must be completed and defended in an oral examination administered by the Advisory Committee. Under the examination option, a 3-hour written examination is administered by the student’s Advisory Committee. This option is rarely employed and only in unusual circumstances.

§ Note: May take one or the other of the following but not both:

- CS 53600 or ECE 56000 or MGMT 54700
- PSY 57700 or IE 57700

* unless taken under Area A
† When content is appropriate
€ not offered in recent years due to staff shortages.