Computer Forensics and Security Management

Prospective students should use this checklist (http://www.uab.edu/graduate/images/acrobat/checklist/CFSMchecklist.pdf) to obtain specific admissions requirements on how to apply to Graduate School.

Program Contact Information
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Birmingham, AL 35294-4562
jeffw@uab.edu

Program Information
The Master of Science in Computer Forensics and Security Management (MSCFSM) is an interdisciplinary program that prepares graduates for entry- and advanced-level positions in the field by developing in them the necessary skills crucial for success. The program also provides current practitioners the opportunity to obtain advanced-level training to facilitate career advancement. The program includes a set of core, required courses (including a field practicum) and the opportunity to select from two areas of specialization.

Admission Requirements
Students accepted into the program will have earned a bachelor’s degree from an accredited college or university or recognized university from abroad. Most of these students will have earned a cumulative undergraduate grade point average (GPA) of 3.0 or higher and a combined score of 300 or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE). Applicants whose native language is not English are required to take either the TOEFL or the IELTS and score 80 or higher on the TOEFL or 6.5 or higher on the IELTS. Applicants who earned their bachelor's degree from UAB or those with 5 or more years' experience in the field are exempted from taking the GRE.

Students seeking admission to the program who lack a background in computer science or information systems but who meet the remaining minimum requirements for admission may be admitted contingent on them completing a set of prerequisite courses (or their equivalents) that include:

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 103</td>
<td>4</td>
</tr>
<tr>
<td>CS 103L</td>
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</tr>
<tr>
<td>IS 204</td>
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</table>

Degree Requirements
A total of 30 semester hours are required for the degree, consisting of 21 hours of required courses and 9 hours of electives taken in one of two tracks: Cybercrime Investigations or IT Audit/Fraud Examination.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Required Core Curriculum (21 hrs.)</td>
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<tr>
<td>CS 623 network security</td>
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Select one of the following tracks:

Cybercrime Investigations (9 hrs.)
- CS 654 Malware Analysis
- CS 537 Cybercrime and Forensics
- JS 515 Investigating Online Crimes

IT Audit/Fraud Examination (9 hrs.):
- AC 572 Forensic Accounting and Information Technology Auditing
- AC 573 Fraud Examination
- LS 571 Legal Elements of Fraud Investigation

A typical Plan of Study for a student in the program looks like this:

Cybercrime Investigations Track

<table>
<thead>
<tr>
<th>First Year</th>
<th>First Term</th>
<th>Second Term</th>
<th>Summer Term</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>JS 502</td>
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<td>JS 530</td>
<td>JS 515</td>
<td>3</td>
</tr>
<tr>
<td>IS 613</td>
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<td>CS 537</td>
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<tr>
<td></td>
<td>6</td>
<td>9</td>
<td>6</td>
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<table>
<thead>
<tr>
<th>Second Year</th>
<th>First Term</th>
<th>Second Term</th>
<th>Hours</th>
</tr>
</thead>
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<td>3</td>
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<tr>
<td>CS 623L</td>
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<td>JS 675</td>
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<td>Total credit hours: 30</td>
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IT Audit/Fraud Examination Track

<table>
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<tr>
<th>First Year</th>
<th>First Term</th>
<th>Second Term</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>AC 572</td>
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<td>AC 573</td>
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</tr>
<tr>
<td>IS 613</td>
<td>3</td>
<td>JS 530</td>
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</tr>
<tr>
<td>JS 502</td>
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<td>CS 636</td>
<td>3</td>
</tr>
<tr>
<td>CS 623L</td>
<td>0</td>
<td>JS 675</td>
<td>3</td>
</tr>
<tr>
<td>LS 571</td>
<td>3</td>
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Courses
FS 565. Cold Case Analysis. 3 Hours.
Introduction to the methods used in analyzing unsolved cases, including innovative uses of technology, 3rd party investigators, and teams.
FS 567. Forensic Toxicology. 3 Hours.
Discussion of drugs and poisons found in biological evidence, including
the pharmacokinetic and pharmacodynamic properties of drugs and
poisons, evidence collection and handling, selection of the most
appropriate evidence, and analytical methods of detection.

FS 572. Molecular Genetics for Forensic Scientists. 3 Hours.
Prokaryotic and eukaryotic gene structure and function. Independent
project required.

FS 650. Advanced Questioned-Death Investigation. 3 Hours.
Examination of forensic pathology as used in local medical examiners'
ofices.

FS 653. Advanced Investigation of Fires and Explosions. 3 Hours.
Introduction to arson investigation including overview of specific
techniques used in case investigation.

FS 657. Forensic Toxicology. 3 Hours.
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Hour.
Independent study in a student's substantive area of interest under the
direction of a faculty member.
Prerequisites: FS 679

FS 669. Thesis Research in Forensic Science. 1-3 Hour.
Independent study in a student's substantive area of interest under the
direction of a faculty member Admission to candidacy and successful
defense of thesis proposal.

FS 703. Laboratory Rotation III: Drug Analysis. 3 Hours.

FS 704. Laboratory Rotation II: Biological Methods. 3 Hours.

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