Strengthening the National Cyber Security Workforce
NSF CyberCorps® Program

Information Session

Thursday, April 12, 2018

Andrew F. Brimmer College of
Business and Information Science

Computer Science Department
Master of Science in Information Systems and Security Management (MS-ISSM), launched in Fall 2014.

A 2-year interdisciplinary program offered under a cooperative arrangement with various departments including Computer Science and Business in CBIS.

Students graduating from this program will help fill the need for well-educated ISSM specialists in the government, private sector, and academia.

31 graduate students enrolled in the program currently.

37 master students have graduated, and 7 will graduate in May 2018.
Mission/Objective of MS-ISSM Program

- Impart and enhance knowledge about information systems and security
- Expand and develop ability to secure and manage complex information systems
- Instill and nurture social awareness, and the ability to function in a team
- Instill and nurture a sense of legal and ethical issues
- Develop an understanding of strategic and policy issues
# MS-ISSM Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
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<tbody>
<tr>
<td>Core Courses (19 credits)</td>
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<tr>
<td>ISSM 530</td>
<td>3</td>
<td>Information Security</td>
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<tr>
<td>ISSM 531</td>
<td>3</td>
<td>Network Security and Management</td>
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<tr>
<td>ISSM 532</td>
<td>3</td>
<td>Info. Security Policy and Risk Analysis</td>
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<tr>
<td>ISSM 540</td>
<td>3</td>
<td>Big Data Analytics</td>
</tr>
<tr>
<td>BUSN 504</td>
<td>3</td>
<td>Information Security Economics</td>
</tr>
<tr>
<td>BUSN 505</td>
<td>3</td>
<td>Information Security Operations Management</td>
</tr>
<tr>
<td>BUSN 506</td>
<td>3</td>
<td>Financial Systems Security</td>
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<tr>
<td>Project option (3 credits)</td>
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<tr>
<td>Thesis option (6 Credits)</td>
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<tr>
<td>BUSN/ISSM 599</td>
<td>3</td>
<td>Information Systems Security Mgmt. Project</td>
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<tr>
<td>BUSN/ISSM 600</td>
<td>6</td>
<td>Master’s Thesis</td>
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</tbody>
</table>
# MS-ISSM Electives

<table>
<thead>
<tr>
<th>Electives (9 Credits)</th>
<th>3 courses from the list</th>
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</thead>
<tbody>
<tr>
<td>BUSN 507</td>
<td>3</td>
<td>Supply Chain Information Security Management</td>
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<tr>
<td>BUSN 508</td>
<td>3</td>
<td>Information Resource Management</td>
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<td>BUSN 509</td>
<td>3</td>
<td>Legal and Social Security Informatics</td>
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<td>ISSM 533</td>
<td>3</td>
<td>Information Assurance Management</td>
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<tr>
<td>ISSM 534</td>
<td>3</td>
<td>Web Application Security</td>
</tr>
<tr>
<td>ISSM 535</td>
<td>3</td>
<td>Incidence Response and Recovery</td>
</tr>
<tr>
<td>ISSM 536</td>
<td>3</td>
<td>Mobile Security</td>
</tr>
<tr>
<td>ISSM 537</td>
<td>3</td>
<td>Computer Forensics</td>
</tr>
<tr>
<td>ISSM 538</td>
<td>3</td>
<td>Software Security</td>
</tr>
<tr>
<td>BUSN/ISSM 580</td>
<td>3</td>
<td>Special Topics</td>
</tr>
<tr>
<td>Department Lists</td>
<td>3</td>
<td>Any other approved 500 level BUSN/ISSM courses,</td>
</tr>
</tbody>
</table>

[https://www.tuskegee.edu/programs-courses/colleges-schools/cbis/computer-science/graduate-program](https://www.tuskegee.edu/programs-courses/colleges-schools/cbis/computer-science/graduate-program)
Ø Tuskegee University Center of Information Assurance Education (CIAE) was initially recognized as Center of Excellent by Department of Homeland Security (DHS) and National Security Agency (NSA) in 2012.

Ø Reaffirmation of CIAE as Center of Excellence in Cyber Defense Education (CAE-CDE), recognized by DHS and NSA in April, 2017, for another 5 years (2017-2022).

Ø The CIAE at TU servers as organizing body to offer resources and assistance for faculty, students, and community in conducting teaching, research, and other activities in Information Assurance.

Ø https://www.tuskegee.edu/about-us/centers-of-excellence/ciae
The National Science Foundation (NSF) has awarded Tuskegee University a total $1.776 million CyberCorps®: Scholarship for Service (SFS) grant for the next five-year period (2017-2022).

To strengthen the national cyber security workforce.

To help prepare qualified and well trained professionals in cybersecurity to address the global and national cybersecurity challenges.

Only about 73 universities, including 3 HBCUs nationwide have this program – highly competitive.

Provides scholarships that fully fund the typical costs incurred by full-time students while attending a participating institution.
63 Currently-Active SFS Institutions

CyberCorps®: Scholarship for Service (SFS) Participating Institutions

63 Scholarship for Service Participating Institutions
in 29 states + District of Columbia and Commonwealth of Puerto Rico
https://www.sfs.cpm.gov/ContactsPI.aspx
SFS Scholars

- Madison Helmstetter, Senior, Computer Science
  - NSA, 2018 Summer Internship
  - Enrolled in MS-ISSM program at TU

- Morgan Screws, Senior, Computer Science
  - FBI, 2018 Summer Internship
  - Enrolled in MS-ISSM program at TU
TU Faculty in SFS Team

- Dr. Charlotte Morris, Interim President of Tuskegee University and Professor of Management
- Dr. Faye Hall Jackson, Associate Dean of College of Business and Information Science, Head and Professor of Management Department
- Dr. Hira Narang, Head and Professor of Computer Science Department
- Dr. Fan Wu, Professor of Computer Science Department
- Dr. Li Jiang, Associate Head and Professor of Electrical Engineering Department
National Science Foundation
and
The Department of Homeland Security
hereby certify that
Tuskegee University
is a member of the
CyberCorps®: Scholarship for Service (SFS) Community
based on the grant awarded by the National Science Foundation to
Tuskegee University for the support of the CyberCorps® project entitled
"Collaborative Research: SFS Program:
Strengthening the National Cyber Security Workforce"
under the direction of Fan Wu, Faye Jackson, Li Jiang, Charlotte Morris and Hira Narang,
for a period of five years starting January 2017

Victor Pionowski, Ph.D., Lead
CyberCorps®: SFS, NSF

Daniel Stein, Program Director
National Cybersecurity Training and Education Program, DHS
Two Cohort Programs

- B.S. + M.S.* (3 years)
  One senior year + two master graduate years
- M.S. (2 years)
  Two master graduate years

*M.S. in Information Systems and Security Management*
Benefits

✓ Tuition (up to 19 credits for undergraduates, up to 9 credits for graduate students per academic semester)
✓ Stipend of $22,500 for undergraduates, $34,000 for graduate students per year
✓ A health insurance reimbursement allowance of up to $2,000 per year
✓ A professional development allowance of up to $4,000 per academic year
✓ A book allowance of up to $1,500 per academic year
Major Obligations

- All scholarship recipients are required to complete an internship and work for a federal, state, local or tribal government organization in a position related to cybersecurity for a period equal to the length of the scholarship after graduation.

- If a scholar does not meet the obligations, the scholar will be required to repay to Tuskegee University the monies received under the scholarship. This includes scholarship money for tuition and fees, stipend, professional development, and any administrative and interest fees associated with repayment processes.
SFS Website: www.sfs.opm.gov

CyberCorps®: Scholarship for Service

Scholarship For Service (SFS) is a unique program designed to increase and strengthen the cadre of federal information assurance professionals that protect the government’s critical information infrastructure. This program provides scholarships that fully fund the typical costs that students pay for books, tuition, and room and board while attending an approved institution of higher learning. Additionally, participants receive stipends of up to $8,000 for undergraduate and $12,000 for graduate students. The scholarships are funded through grants awarded by the National Science Foundation (NSF).

Students
- Program Guidance
- Participating Institutions
- Contacts
- Links
  - Registration - for Scholarship for Service recipients only
  - Login - access secure area to change password/student profile, create/review online resume, report a match, create/review job activity report

Agency Officials
- Registration
- Login - make changes to your profile, view program guidance, search for students available for internships, retrieve a list of Agency Officials

Principal Investigators
- Registration
- Login - make changes to your profile, view program guidance, search for students available for internships, retrieve a list of Agency Officials

Official website of the U.S. Government operated by the Office of Personnel Management

Warning: A vulnerability has been identified with viewing PDF forms from a public computer (i.e., library or coffee shop). Information in the Adobe form is cached thereby allowing another user to view your Personally Identifiable Information commonly referred to as PII. Until this vulnerability has been corrected by Microsoft and Adobe, we would recommend that you do not use public computers to access or enter your personal information. If you cannot avoid using a public computer, click on the link to view instructions on how to manually clear the cache after use. Once the vulnerability has been corrected this message will no longer appear. We apologize for any inconvenience this may cause. Thank you.

U.S. Office of Personnel Management 1900 C Street NW, Washington, DC 20415 | (202) 606-1800 | TTY (202) 606-2532
Eligibility and Admission Requirements

• A 3.0 minimum GPA.
• Demonstration of legitimate interest in, and commitment to, pursuing IA-related careers after graduation.
• Compliance with all program requirements, including US citizenship or permanent residence and eligibility for US Government security clearance.
• Documented interest in, and dedication to, public service.
• Strength and resiliency of professional character to be gleaned through an interview (held either in person or remotely via a VoIP session).
Useful Information

- Tuskegee University CyberCorps® Scholarship for Service (SFS) Program website: http://www.tuskegee.edu/sfs_program.aspx

Contact Information:

Dr. Fan Wu
334-727-8362
fwu@tuskegee.edu

Deadline to apply for Fall 2018: June 15, 2018
Question?