October 4, 2013

TO: Academic Senate Members

FROM: Office of Academic Governance
Chris McGowan, Academic Governance Secretary

RE: Academic Senate Meeting

The Academic Senate will meet on Wednesday, October 16, 2013 at 2:00 p.m. in the TI Auditorium, ECS South 2.102.

Please bring the agenda packet with you to this meeting. If you cannot attend, please notify me at x4791.

xc: David Daniel  Hobson Wildenthal  Andrew Blanchard  Serenity King
John Workowski  Calvin Jamison  Inga Musselman  Larry Redlinger
Darrelene Rachavong  Abby Kratz  Chief Larry Zacharias  Deans
Rochelle Peña  Liza Liberman, SG President

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<th>2013-2014 ACADEMIC SENATE</th>
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*Speaker
**Secretary
AGENDA
ACADEMIC SENATE MEETING
October 16, 2013

1. Call to Order, Announcements & Questions Dr. Daniel

2. Approval of the Agenda Dr. Leaf

3. Approval of Minutes Dr. Leaf
   September 18, 2013 Meeting

4. Report on Campus Changes by VP Jamison Dr. Jamison

5. Speaker’s Report Dr. Leaf

6. FAC Report Dr. Leaf

7. CEP Proposals Dr. Radhakrishnan
   A. Non-degree seeking graduate student policy update
   B. Core Curriculum Changes
   C. CSSS Certificate Program

8. Student Government Liaison Report

9. Committee on Committees recommendations Dr. Leaf
   A. Appoint Clint Peinhardt as Vice Chair to CEP
   B. Approve nominations to the Information Resources and Planning Committee
   C. Appoint Daniel Griffith to CQ Committee
   D. Appoint Donald Hicks to Academic Program Review Committee
   E. Add Ellen Safley to the Academic Program Review Committee
   F. Approve Amended charge to the Institutional Animal Care and Use Committee
   G. Approve appointment of new members to Institutional Animal Care and Use Committee

10. Annual Report for the University & Senate Committees Dr. Leaf
    A. Committee on Effective Teaching
    B. Committee on Academic Integrity
    C. Commencement Committee
    D. Information Security Advisory Committee

11. Adjournment Dr. Daniel
UNAPPROVED AND UNCORRECTED MINUTES

These minutes are disseminated to provide timely information to the Academic Senate. They have not been approved by the body in question, and, therefore, they are not the official minutes.

ACADEMIC SENATE MEETING
September 18, 2013

Present:  
David Daniel, Hobson Wildenthal, Robert Ackerman, Shawn Alborz, Peter Assmann, Poras Balsara, Kurt Beron, Judd Bradbury, Gail Breen, Matthew Brown, Gerald Burnham, John Burr, R. Chandrasekaran, Pankaj Choudhary, David Cordell, Ovidiu Daescu, Gregg Dieckmann, Vladimir Dragovic, Simon Fass, John Ferguson, Nicholas Gans, John Geissman, Lev Gelb, Jennifer Holmes, D. T. Huynh, Mustapha Ishak-Boushaki, Murray Leaf, Jin Liu, William Manton, Dennis Miller, Jessica Murphy, Steve Nielsen, Simeon Ntafos, Ravi Prakash, Viswanath Ramakrishna, Michael Rebello, Fabiano Rodrigues, Mark Salamasick, Liz Salter, Richard Scotch, Tres Thompson, Subbarayan Venkatesan,

Absent:  

Visitors:  
Andrew Blanchard, Serenity King, Elizaeta Liberman, James Marquart, Emily Tobey

1. Call to Order, Announcements and Questions
The President had one large announcement for the Senate as of the morning of September 18. Leah Teutsch was no longer Chief Information Security Officer. While the President does a nationwide search, Sue Taylor will be the interim Chief Information Security Officer. Members of the Faculty Senate will be involved in the search.

Last year there was a report to the Faculty Senate on Salary Compression and Inversion. The report has been on the President’s desk waiting for him to form a committee to address the concerns listed in the report. The President is now forming the committee, and working with Colleen Dutton who has had experience in this area. The President will work with Faculty Senate to assure that the right committee is formed.

2. Introduction of Randall Rikel, University Controller
Randall Rikel wanted to meet everyone on campus. His group is currently working on refining the business processes of the university. One of his main goals is to get rid of the massive amounts of paper used in our processes. He also would also like to focus on customer service. His group will work on policies and procedures to make sure they still work for our growing university. He asked the Senate to submit any ideas they may have to him for consideration.
3. **Approval of the Agenda**
   Richard Scotch moved to accept the Agenda. Liz Salter seconded. The motion carried.

4. **Approval of Minutes**
   Simon Fass moved to approve the minutes. Mustapha Ishak-Boushaki seconded. The motion carried.

5. **Speaker’s Report – Murray Leaf**
   1. Appointment letters for committees have been sent. Six faculty have declined appointments to committees. In addition, one has declined appointment as vice chair but will remain on the committee. This is actually a fairly small number. We attribute it in part at least to the letters going out very promptly. I have asked the Committee Committees to suggest alternatives.

   2. At the last meeting you authorized me to choose between two possible members for the Committee on Qualifications. As this evolved, we have a different nominee: Professor Marion Underwood. I have asked the Committee on Committees to approve the appointment as being within the intent of the mandate and they agree, but in view of the importance of the committee, I have placed it on the agenda Senate confirmation as well.

   3. President Daniel has appointed Sue Taylor, Associate VP for Information Resources, to the Position of Chief Information Security Officer. I expect this to lead to closer cooperation between that office and the Senate Information Security Advisory Committee.

   4. Dr. Wildenthal has circulated a new directive on peer evaluation of teaching effectiveness from the UT System. This reflects more intrusions by certain regents into matters they should not be dealing with, but on the whole what is being demanded appears to be consistent with what we are already doing. I have forwarded the material to the Committee on Teaching Effectiveness to recommend a response.

   In discussion, members of Council also wanted to see the directive and material. Speaker Leaf agreed to forward it.

   5. Everything else is on the agenda.

6. **FAC Report**
   The Executive Committee of the Faculty Advisory Council met on Friday, August 9. The main purpose was to set the agenda for the full FAC meeting at the end of September, but to do so we also met with VC Reyes and Asst. VC Dan Sharporn, Director of the Office of General Council.

   The main concern was the proposed policy on conflict of commitment and interest, as described in UTSP 180. As originally drafted, in accordance with demands of the Regents, this would have required all faculty and certain staff to describe all their outside activities, compensated and uncompensated, regardless of whether they occurred during their periods of employment during
the academic year and on work days. They would be required to get approval from their supervisors, and all reported activities were to be disclosed on a public, searchable, database. Financial interests of others in their households would also have to be disclosed. Failure to disclose could result in termination of employment.

In response, last Winter the FAC passed several resolutions. Essentially, they reasserted long standing and long recognized rights that faculty members have as human beings, citizens, and scholars. The conclusion was that it should be up the concerned faculty and staff themselves to make a prima facie judgment of whether there was the reasonable appearance of a conflict, and if so they should disclose it. Religious, political, and other non-work related associations were their own concern. Activities we normally engage in as scholars in our respective disciplines, and report in our annual reports, did not need to be reported again and we did not need to get permission to engage in them.

Evidently, the presidents and others all reacted along the same lines. At the Spring meeting of the FAC, Chancellor Cigarroa promised to establish a committee to consider revising the policy further. He also promised that once the revision was completed, the draft would come back to the FAC for further comment. The purpose of the meeting with Dr. Reyes and Mr. Sharphorn was to describe the revisions and hand the draft policy back to the FAC accordingly. It will be on the agenda for the Spring meeting. But I can convey the most important point now. The draft is intended to conform to the FAC resolutions. In my opinion it does so. Normal scholarly activity does not need to be disclosed; it can be considered preapproved. The only information that will be on the database is prima facie conflicts, along with the plans for managing them. We are still discussing who will be able to access, but along with the draft of the new SP 180 Dr. Reyes circulated a report from the National Academy of Public Administration on a similar proposal to disclose financial interests of members of Congress. Even though such information is already otherwise available, they unequivocally recommended against putting on a public, searchable, database—for all kinds of reasons both of personal security and national security.

The encryption policy has also been modified. The only information that the university now will consider itself obligated to protect by encryption is that which is required by law, either HIPAA, FERPA, or specific contractual requirements.

The possible policies on departments is moving slowly, but were assured that nothing will be decided finally without faculty involvement.

7. **Student Government Liaison Report**

Student Government President Liza Liberman reported that she had been in office for four months. The student government has been meeting with students and dealing with their concerns. The major concern of students is dining on campus, specifically service and food quality. Changes are being made to address these concerns. The Student Government office is taking over the student part of the Comet discount program; previously it was handled by HR. Student Government is conducting town halls with each of the deans to address the concerns of students.
As Student Government President Liza Liberman acts as the University’s representative in Austin as part of the UTS Student Academic Council. SAC is working to set up bare minimum sustainable practices system wide. There are many schools that do not have a recycling program, or if they do have recycling spots that are seriously under used. They are working to create a UT system wide process to welcome international students to campus. Many UT system campuses do not have procedures to welcome international students. UTSAC is planning to use our university’s welcoming plan as a template in developing the system wide plan. UTSAC followed the handgun on campus bill, which did not pass. UTSAC will be writing a letter of support on the previous incentive where each university can make the decision themselves. They wish to have a record stating their opinion should it come up in the legislature again.

8. School By Laws
Speaker Leaf circulated the final draft of school bylaw revisions made by the 4+4 committee. Everyone is not unanimously agreed on every word, but everyone agreed on content and spirit - i.e. mutual responsiveness and transparency. During discussion Viswanath Ramakrishna expressed his concern that departments were mentioned in the bylaws. R. Chandrasekaran suggested a minor change. The line on page three, “School bylaws may allow for departmental bylaws.” Was struck and replaced with, “For schools that have departments, the departments shall have bylaws.”

Dr. Ramakrishna continued to express his concern that the wording was not specific. Dean Spong responded that the committee did not want to constrain the schools because each school is different. Dr. Ramakrishna continued to express his concern that the requirement for strong consultation of the faculty in the makeup of executive committees may be construed as suggesting that such strong consultation was not required at another point in the document. Speaker Leaf responded that the intent was to have strong consultation, but that the committee could not agree on how to specify it and felt that it should be up to the schools. Once the schools themselves created their bylaws they would be returned to the Senate for debate. A request was made that once the bylaws has been created a policy can be developed to describe what happens if the bylaws are not followed. Speaker Leaf promised to do so, and noted that we presently have guidelines for departmental bylaws, which will now also be revised to accord with the school revisions.

Richard Scotch moved to approve the draft as amended. Simon Fass seconded. The motion carried.

The draft will be distributed to schools.

9. Faculty Personnel Review Committee Charge
The Faculty Personnel Review Committee is mentioned in the bylaws. It combines two previous committees, the Peer Review Committee, and the Faculty Personnel Review committee. The Peer Review Committee is mentioned in our standards for promotion and tenure but did not have a charge apart from the functions assigned in that policy. The Faculty Personnel Review committee is mentioned in our annual review and periodic performance evaluation policies and did have a separate charge. The committees had nearly identical functions, and our policies noted that they could be combined. This charge combines them and eliminates the possible
duplication. Both were elected faculty committees to oversee peer review and the post tenure review process. Kurt Beron moved to approve the policy. Jessica Murphy seconded. Motion carried.

10. Committee on Committees recommendations.
   A. Academic Program Review Committee Charge
      There are two main changes to the charge. The first is to expand the committee to six members and second is to reduce the term of service to one year. The committee reviews up to 16 programs per year that vary between schools each year. The changes are intended to assure that the committee will have a member from each unit with programs being reviewed and will be flexible enough from year to year. R. Chandrasekaran moved to approve the charge. Viswanath Ramakrishna seconded. The motion carried.
   B. Information Recourses, Planning and Policy Committee
      The charge was updated to compliment the Information Security Advisory Committee. This committee will now be concerned only with long-range planning. Given recent changes in the information resources and security areas the update has become more important. Richard Scotch moved to approve the amendments. Ravi Prakash seconded. The motion carried.

11. Resolution on the installation of invasive software on University Computers
    Ravi Prakash outlined the resolution that was distributed. Starting September 1 2013 all new desktops must be encrypted. The resolution was based on the UT Austin Information Security policies. It is possible for faculty to request exemptions. It also allows every school and program to have discretion. Andrew Blanchard and Ravi Prakash have had lengthy discussion on the topic. UT System is very clear and direct on what their expectations are. The process will be to evaluate and then implement. As the encryption process goes forward there will be more collaborative discussion on how best to proceed. It is in both the faculty and administrations best interest to make this a collaborative effort. President Daniel reminded the Senate that the university must comply with the rules but the key will be the conversations on how to proceed appropriately. There was a general consensus that if a desk top was new to the university it would be encrypted. How many of the older computers would need to be encrypted is unknown. It could be 15, 20, or 50 % but what is known it will not be 100%. In the meantime a procedural policy regarding the process will be developed. Ravi Prakash moved to approve the resolution. Viswanath Ramakrishna seconded. The motion carried.

12. Annual Reports from Committees
    Jessica Murphy moved to accept the annual reports for the Academic Program Review Committee, the Committee on the Support of Diversity and Equity, and the Advisory committee on the University Budget. Liz Salter seconded. The motion passed.

There being no further business, President Daniel adjourned the meeting.
Non-Degree Students

Must hold a bachelor's degree from a recognized university. See below

as a Non-Degree-Seeking Graduate Student

A student wishing to take graduate level coursework without becoming a candidate for a graduate degree may apply for admission to UT Dallas as a non-degree-seeking graduate student.

The non-degree applicant must satisfy the condition of having an earned baccalaureate degree for admission to a master's degree program at UT Dallas. He/she should consult with the department or program offering the graduate level coursework to determine GRE/GMAT and letters of recommendation requirements. The graduate advisor in the degree program will define specific eligibility requirements and admit students to the courses open to non-degree enrollment each semester. Enrollment as a non-degree student is restricted to the regular registration period each semester. Please refer to the graduate catalog in each school for additional information on prerequisite requirements for each course.

Enrollment as a non-degree-seeking graduate student is subject to review and approval by the Associate Dean of Graduate Studies in the specific school. No more than 15 semester credit hours taken as a non-degree enrolled student at UT Dallas may be transferred to satisfy the requirements of a graduate degree program, except with the permission of the Dean of Graduate Studies. Students admitted as non-degree-seeking may not be eligible for financial aid and should consult the UT
Dallas Financial Aid office regarding their status prior to submission of their application for admission.

NOTE: A student in the United States on an F1 or J1 Visa may only be admitted to a degree program at UT Dallas and is not eligible for Non-Degree-Seeking Student status.
Proposed Professional Certificate Program

Title: *Certificate in Cyber Security Systems (CCSS)*

School: *Erik Jonsson School of Engineering and Computer Science (ECS) and the Naveen Jindal School of Management (JSOM)*

Contacts: 
- ECS – Stephen Yurkovich (Systems Engineering), steve.yurkovich@utdallas.edu;
- ECS – Kamil Sarac (Computer Science, ksarac@utdallas.edu);
- JSOM – Mark Salamasick, mark.salamasick@utdallas.edu

Implementation Date: *January 2014 (Spring 2014 semester)*

Introduction/Description:

Security of data is growing in importance for a large variety of everyday “systems”. The most visible systems are in the medical field, public utilities, communications via email and mobile phones, government record-keeping systems, transportation, education and finance. The list of such vulnerabilities is large and growing: attacks on functionality of networks and systems; malware, worms, and Trojan horses; botnets and zombies; fake security software warnings; social network attacks and so on. Threats are arising more and more on the personal level as well; to wit, recent estimates are that mobile threats account for more than half of all malware, and a growing number of mobile apps are now malicious. Cyber security involves protecting information as well as the critical systems that process, store and manipulate such information in the presence of increasing threats, including multiple aspects of hardware, software and management systems.

The volume and sophistication of cyber security threats point to a critical demand for research and education in the general area of cyber security, which is highly interdisciplinary by nature. Elements form computer science, systems engineering, and information technology management form the basis for systems-related technologies to secure typical vulnerabilities.

In addressing this growing critical demand, the *Certificate in Cyber Security Systems (CCSS)* offered at UT Dallas provides a joint program between the ECS (engineering and computer science) and JSOM (internal audit and information technology management), with a natural home in the Department of Systems Engineering (SYSE). The existing Systems Engineering and Management MS degree (MS-SEM) is a joint program between ECS and JSOM and also has its home in SYSE; therefore, the academic environment developed to date in SYSE for the MS-SEM program is well suited for the new CCSS. Moreover, faculty from the Department of Computer Science at UT Dallas actively participate in the MS-SEM degree by teaching several existing courses.

As proposed, the CCSS is an interdisciplinary program with three specialized tracks: emphasis in Computer Science (denoted CS, within ECS), emphasis in Systems Engineering and
Management (denoted SYSM, within ECS), and emphasis in Internal Audit and IT Management (denoted IA/IM within JSOM). It is important to note that each track consists of one common course in the fundamentals of cyber security (taught every semester) and three additional courses (taught at least once each year) specific to the individual tracks, for a total of 12 semester credit hours.

Job Market and Student Demand:

Overview

The target customers for this program will range from current students, to future national and international students, to colleagues from local and regional industry in various sectors that architect, develop, engineer, manufacture, manage, plan or research all aspects related to systems where cyber security is important. This includes several fields in engineering as well as financial, human resources or project or program management of large and complex systems. To help identify these targets, in 2012 an informal survey was conducted wherein approximately 180 companies were asked to respond to questions concerning their cyber security training and education needs; Appendix A includes a report on the results of that survey.

The target vertical sectors could, therefore, be fairly wide-ranging – information assurance systems; information and communications technology (ICT) systems; healthcare systems; energy, environment and infrastructure systems; medical systems; macro-economic and financial systems; aerospace, defense and space systems; transportation systems; etc. The choice of specialization tracks within the CCSS will be driven by market demand from specific industry sectors and companies willing to hire graduates from and sponsor employees through this program.

Job Market

The National Security Agency (NSA) and the Department of Homeland Security (DHS) designated the UT Dallas as a National Center of Academic Excellence in Information Assurance Research. The University was also named a Center of Academic Excellence by the Department of Homeland Security. The US Cyber Security market in 2011 was $63.7 billion, and is expected to grow to about $120.1 billion by 2017. The federal government's total cumulative cyber security spending will be $55 billion between 2010 and 2015, growing at approximately 6.2% CAGR over the next six years.

The National Cyber Security Alliance (NCSA) says the demand for improved cyber security education is a critical need in bolstering America’s future workforce. Today, the United States faces a deficit in the number of cyber security professionals, and predictions of the growing need are worrisome. Estimates from a recent study by ISC2 and Frost and Sullivan reveal a need for more than 700,000 new information security professionals in the Americas by 2015. The U.S. Bureau of Labor Statistics estimates there will be 295,000 new IT jobs created in the United States between 2008 and 2018 — many of which will require cyber security expertise. This data (see below) points out a great responsibility within the U.S. education system and other industry groups to help produce cyber capable citizens.
Based on the above discussion and these statistics, it is clear that the field of cyber security systems comprises of a wide range of areas – traditional computer science, traditional engineering management, as well as segments of traditional - electrical engineering, hardware and software engineering, mechanical engineering, biomedical engineering, aerospace engineering, transportation engineering, operations research and others, representing a large portion of the engineering, computer science, and management population. Moreover, these statistics reflect exciting job growth and economic development opportunities for the UT Dallas and the North Texas Metropolitan area.

**Student Demand**

Data compiled recently across various high-tech sectors relevant to the field of cyber security indicates a sizable relevant professional population in the DFW Metroplex. Even if a small percentage of these are assumed to be engineers and managers, and we further assume that

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1. Frost and Sullivan, *The 2011 (ISC)2 Global Information Security Workforce Study*
engineers and managers typically renew their skills every 10 years, a large potential total available market of engineers and managers exists who would need training in cyber security systems every year in the DFW area alone. This not only indicates a growing job market, but also a growing need for a structured Certificate program readily available to potential students.

Interests in the topical areas for the CCSS have been verified in discussions with local companies – Dell, McAfee, Intel, IBM, Deloitte, to name just a few – along with an initial interest in potential commitment of employees to send through this program. Moreover, governmental organizations – Department Homeland Security, FBI, Electric Reliability Council of Texas, City of Dallas – have shown a keen interest as well.

As a further indicator of student demand, programs in this field have developed in several tier-1 schools across the United States, and research in the area is also strongly supported.

**Relation to Other Certificated Programs**

There exists a graduate level certificate program in information assurance (IA) in the Computer Science department at UT Dallas. That program is intended for students who enroll in an MS degree program in ECS only, requiring students to complete 15 credit hours by taking a number of graduate level IA core courses (two-four) together with a number of graduate level IA enhanced courses (three-one). The program lists about 10 IA core and 10 IA enhanced courses that qualify for this program. A significant majority of the courses in this program are specialized technical courses that require a significant level of preparation in core computer science domain. In other words, as stated above, this program is designed mainly for students who are pursuing a graduate level degree in ECS such as MS or PhD in computer science or in software engineering or in telecommunication engineering programs. Many of the classes in this program require prerequisite knowledge typically obtained by taking some other senior level courses or graduate level courses in the CS department. As a result, the target audience for this program is rather limited to students pursuing degrees in the Computer Science department.

On the other hand, cyber security is an interdisciplinary field where there is a significant need for people with both computer science related technical skills in IA as well as systems design and engineering related skills. The proposed CCSS program requires 12 credit hours as opposed to 15 credit hours in the existing IA certificate program in the CS department. Within the CS Track alone, students are provided the basic fundamental knowledge of cyber security topics at the computer systems level as well as application and network layers. *As a result, with the added diversity of systems engineering and management, and internal audit/information management, the proposed CCSS program is designed to be more reachable by students with different technical backgrounds and requires a manageable and balanced effort to successfully complete the program.*

**Enrollment Projections**

Based upon strong interests expressed by a number of area companies and government agencies, and other members of the JSOM and ECS Advisory Boards, we expect to have a commitment from these companies to send a certain number of students through the program at any given point in time. Moreover, we expect a significant number of currently enrolled students to seek...
the Certificate as part of their degree program, both in ECS and JSOM, giving an immediate initial boost to enrollment in the program.

In support of a certainty of demand among current UT Dallas student alone, we have conducted straw man polls in existing courses to gauge the likelihood of enrolling students in the first (fundamentals) course of the CCSS in Spring semester 2014. The result of such a poll conducted in the first week of the Fall 2013 semester from one class (ACCT 6336 IT Audit and Risk Management) indicated that half of the 25 students said they would take the new cyber security fundamentals course if it were offered next semester. Based on this and the expected demand explained above, we project a likely enrollment in that class of 30-40 students in the first offering.

These discussions suggest that the following progression for enrollment in the CCSS might be very realistic:

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Organization and Administration:

The program will be jointly offered and co-managed by two schools – ECS and JSOM – and will be housed in the Department of Systems Engineering, which will handle all admissions, assessment and record-keeping (monitoring of requirements), as well as issuance of the final earned Certificate. Systems Engineering is a natural home for this program, given the interdisciplinary nature of cyber security systems, but also because of the existing Systems Engineering and Management MS-SEM degree program, also joint with ECS and JSOM (and housed in Systems Engineering). Representatives from the impacted programs (Computer Science, Systems Engineering, Internal Audit, and Information Management) will be involved in oversight and decisions relevant to the administration of the program. Admission decisions would be made by a joint committee of faculty from these programs in ECS and JSOM.

Faculty to teach the courses will be from ECS and JSOM (see also Appendix C), whereas faculty from other schools on campus will be invited to teach in guest lecture roles as appropriate. Industry leaders with expertise in specific fields will also be invited as appropriate.

Admission Policy:

Admission into the CCSS will be automatic to students who are admitted into other degree programs within ECS and JSOM. In this way, the specialized tracks in the CCSS can serve as concentrations in other degree programs, such as in the MS-SEM. Qualifications, according to undergraduate degree and background courses, determines which track is appropriate.

For non-traditional students interested only in the Certificate, and not an entire MS degree, the program will be targeted to corporate employees with an appropriate undergraduate degree. Admission requirements would be identical to those for the other graduate degree programs at UT Dallas in ECS and JSOM, except that no GRE/GMAT scores would be required. For such students, admission as “non-degree seeking” would be the path toward obtaining the Certificate.
Curriculum:

The CCSS requires 12 credit hours, and may be combined with other courses and/or certificates toward an MS degree, provided that the student has gained admission into that particular program. Please refer to diagram in Appendix B for a pictorial view of the CCSS, and Appendix C for course descriptions.

To earn the Certificate, students in the program must take four courses, one of which is common to all students and offered every long semester (Cyber Security Fundamentals). Students then choose the remaining three courses within one of the three Tracks. An overall GPA of 3.0 for the four courses is required for students to receive the Certificate.

Courses that make up the CCSS (three semester hours each) are as follows:

**Common Course (3 semester hours):**

All students must take the course *Cyber Security Fundamentals*, to be cross-listed in ECS and JSOM. This is a new course to be developed (and offered for the first time in Spring 2014), under the identifiers SYSM 63xx and MIS 63xx (course numbers to be determined).

**Remaining courses (9 semester hours) are arranged in Tracks:**

Track #1: Computer Science Emphasis

Choose three courses from the following:
- Information Security (CS 6324)
- Network Security (CS 6349)
- Data and Applications Security (CS 6348)
- One course from a list of existing cyber security systems Computer Science courses (offered periodically, and must be approved)

Track #2: Internal Audit, Information Management Emphasis

- IT Security (MIS 6330)
- Internal Audit (ACCT 6380)
- Cloud Computing (MIS 6363)
- IT Audit and Risk Management (ACCT 6336)

Track #3: Systems Engineering and Management Emphasis

In addition to the Fundamentals course and the basic course in Systems Engineering (SYSM 6301), students take at least one course from each of the CS and IA/IM tracks, according to the following:
- Systems Engineering, Architecture and Design (SYSM 6301)
- Information Security (CS 6324) or IT Security (MIS 6330)
- One course from cyber security systems courses listed in the other two Tracks (ACCT 6336/ACCT 6380/MIS 6363 or CS 6348/CS6349)
Faculty/Staffing:

Appendix C provides a complete list of CCSS courses, along with catalog descriptions and instructors.

Additional Information:

Appendix D contains an assessment plan for the Certificate program, whereas Appendix E contains partner letters of support for creation of this Certificate program.
Appendix A – Support Survey

Below are the results of an informal survey conducted in 2012. Approximately 180 companies were asked to respond to questions concerning their cyber security training and education needs.

### Initial Report

**Last Modified: 11/27/2012**

**1. Over the next 24 months will you or your organization need to hire new cyber security staff or contractors?**

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</table>

**2. Over the next 24 months do you believe regulation, risk management or compliance issues will impact your organization’s needs for cyber security education and training?**

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<td>About the same</td>
<td>17</td>
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<tr>
<td>4</td>
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<td>2</td>
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3. When evaluating training organizations and certification, how would you rank the following organizations' training and certifications? 1 is highest score

<table>
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<th>#</th>
<th>Answer</th>
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<td>11</td>
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<td>15</td>
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<td>4</td>
<td>7</td>
<td>54</td>
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<td>2</td>
<td>3</td>
<td>5</td>
<td>9</td>
<td>21</td>
<td>2</td>
<td>44</td>
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<td>0</td>
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<td>55</td>
<td>52</td>
<td>48</td>
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</table>

Statistic  | SANS Institute | ICS2 | ISACA | Microsoft | Cisco | UT Dallas | Not sure |
-----------|----------------|------|-------|------------|-------|-----------|----------|
Min Value  | 1              | 1    | 1     | 1          | 1     | 1         | 1        |
Max Value  | 7              | 7    | 7     | 7          | 7     | 7         | 7        |
Mean       | 2.89           | 3.16 | 3.54  | 4.20       | 3.93  | 5.00      | 4.29     |
Variance   | 4.10           | 2.68 | 1.76  | 2.32       | 3.77  | 2.23      | 7.82     |
Standard Deviation | 2.02 | 1.64 | 1.33  | 1.52       | 1.94  | 1.49      | 2.80     |
Total Responses | 56  | 49   | 50    | 54         | 54    | 44        | 52       |

4. If University of Texas at Dallas offered cyber security training, rank the importance of the following? 1 is highest score

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<td>10</td>
<td>67</td>
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<td>Integrated with other degree programs</td>
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<td>18</td>
<td>19</td>
<td>17</td>
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<td>66</td>
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<tr>
<td>3</td>
<td>UT Dallas Graduate Certificate program</td>
<td>5</td>
<td>12</td>
<td>22</td>
<td>15</td>
<td>10</td>
<td>64</td>
</tr>
<tr>
<td>4</td>
<td>Continuing education programs</td>
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<td>20</td>
<td>12</td>
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<td>60</td>
<td>65</td>
<td>62</td>
<td>42</td>
<td>-</td>
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</tbody>
</table>
Other (please specify)
help
Intense weekend workshops
Lab based real-world training (PenTesting)
Specific Surveys of the Fields of Research available to newbies so that they can make a choice about what they want to do in the long run
Dod 8570
Not Important
online collaborative with organizations
US Citizenship
Bachlors Degree
Capture the Flag
SCADA Security Track

<table>
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<th>UT Dallas Graduate Certificate program</th>
<th>Continuing education programs</th>
<th>Other (please specify)</th>
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<td>2.42</td>
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<td>66</td>
<td>64</td>
<td>68</td>
<td>24</td>
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5. What would be your preferred method of delivery? 1 is top priority

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<td>On-line</td>
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<td>64</td>
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<tr>
<td>3</td>
<td>Combination</td>
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<td>3</td>
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<tr>
<td>Mean</td>
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<td>1.82</td>
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<td>0.63</td>
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6. If UT Dallas offered focused degrees and certificate programs in cybersecurity, please rate your interest in each area

<table>
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7. What areas do you or your organization need training in?

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</table>
Application security
Automated Model Checking tools for the purpose of finding Vulnerabilities is my specific interest
PCI Carrier Security

<table>
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<th>Value</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>Max Value</td>
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</tr>
<tr>
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</table>

8. If you would like more information about UT Dallas programs, results from this survey or to join our mailing list please complete the information below. All information is confidential and will not be shared with any third parties.

<table>
<thead>
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<th>Name</th>
<th>Company</th>
<th>Industry</th>
<th>City</th>
<th>State</th>
<th>Postal Code</th>
<th>Email</th>
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<td>UT Dallas</td>
<td>Education</td>
<td>Richardson</td>
<td>TX</td>
<td>75080</td>
<td><a href="mailto:keithly@utdallas.edu">keithly@utdallas.edu</a></td>
</tr>
<tr>
<td>Beth Keithly</td>
<td>abcd</td>
<td>tech</td>
<td>dallas</td>
<td>tx</td>
<td>75093</td>
<td><a href="mailto:jon@jon.com">jon@jon.com</a></td>
</tr>
<tr>
<td>Scott Stewart</td>
<td>Federal Government</td>
<td>Allen</td>
<td>TX</td>
<td>75013</td>
<td></td>
<td><a href="mailto:s_w_stewart@yahoo.com">s_w_stewart@yahoo.com</a></td>
</tr>
<tr>
<td>Anitha Kalaivanan</td>
<td>MedNetworx</td>
<td>Medical</td>
<td>dallas</td>
<td>tx</td>
<td>75230</td>
<td><a href="mailto:anitha.kalaivanan@utdallas.edu">anitha.kalaivanan@utdallas.edu</a></td>
</tr>
<tr>
<td>Brian Woodward</td>
<td>SPAWAR ATLANTIC</td>
<td>Government</td>
<td>Allen</td>
<td>TX</td>
<td>29483</td>
<td><a href="mailto:kennethadammiller@gmail.com">kennethadammiller@gmail.com</a></td>
</tr>
<tr>
<td>Kenneth Adam Miller</td>
<td>City of Richard</td>
<td>Government</td>
<td>Richardson</td>
<td>TX</td>
<td>75080</td>
<td><a href="mailto:Taylor.prentice@cor.gov">Taylor.prentice@cor.gov</a></td>
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<tr>
<td>Taylor Prentice</td>
<td>AT&amp;T</td>
<td>Telecom</td>
<td>Bellaire</td>
<td>Tc</td>
<td>77401</td>
<td><a href="mailto:js5906@att.com">js5906@att.com</a></td>
</tr>
<tr>
<td>Jimmy Salinas</td>
<td>JCPenney</td>
<td>Retail</td>
<td>Plano</td>
<td>TX</td>
<td>75024</td>
<td><a href="mailto:dbbrothe@jcp.com">dbbrothe@jcp.com</a></td>
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<tr>
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<td>Plano</td>
<td>MA</td>
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<td><a href="mailto:charles_speicherjr@mcafee.com">charles_speicherjr@mcafee.com</a></td>
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<tr>
<td>Charles Speicher</td>
<td>Yokogawa Energy</td>
<td>Dallas</td>
<td>TX</td>
<td>75006</td>
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<td>Computer</td>
<td>Houston</td>
<td>TX</td>
<td>77388</td>
<td><a href="mailto:sandyanders@hotmail.com">sandyanders@hotmail.com</a></td>
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<tr>
<td>Mike Riess</td>
<td>Intel Corp.</td>
<td>Hardware and Software</td>
<td>Dallas</td>
<td>TX</td>
<td>75254</td>
<td>mike.riess@ intel.com</td>
</tr>
<tr>
<td>Robert McClanahan</td>
<td>Arkansas Electric Cooperative Corporation</td>
<td>Electric Utility</td>
<td>Little Rock</td>
<td>AR</td>
<td>72209</td>
<td><a href="mailto:Robert.Mcclanahan@aecc.com">Robert.Mcclanahan@aecc.com</a></td>
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<tr>
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<td>Alcatel-Lucent</td>
<td>Telecommunications</td>
<td>Plano</td>
<td>Texas</td>
<td>75075</td>
<td><a href="mailto:daniel.brown@alcatel-lucent.com">daniel.brown@alcatel-lucent.com</a></td>
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<tr>
<td>Joseph Esensten</td>
<td>Oncor</td>
<td>Utility Company</td>
<td>Dallas</td>
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<td><a href="mailto:joseph.esensten@gmail.com">joseph.esensten@gmail.com</a></td>
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<td>Brian Wrozek</td>
<td>TI</td>
<td>Semiconductor</td>
<td>Plano</td>
<td>TX</td>
<td>75023</td>
<td><a href="mailto:bwrozek@ti.com">bwrozek@ti.com</a></td>
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<td>Brenda Davis</td>
<td>CPS Energy</td>
<td>Municipal Utility</td>
<td>San Antonio</td>
<td>Texas</td>
<td>78205</td>
<td><a href="mailto:bhavis@cpsenergy.com">bhavis@cpsenergy.com</a></td>
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<td>HP</td>
<td>Security Services</td>
<td>Bedford</td>
<td>TX</td>
<td>76021</td>
<td><a href="mailto:louis.r.mckenna@hp.com">louis.r.mckenna@hp.com</a></td>
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<tr>
<td>Bert Wank</td>
<td>infiniRel Corporation</td>
<td>electronics</td>
<td>Plano</td>
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<td>75025</td>
<td><a href="mailto:bert.wank@infinirel.com">bert.wank@infinirel.com</a></td>
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<td>Computer</td>
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<td>Total Responses</td>
<td>22</td>
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September 18 2013
Appendix B – Certificate in Cyber Security Systems

A joint certificate program between engineering and management in cyber security systems

Students take a total of four courses (12 credit hours) consisting of one common fundamentals course and three other courses in one of three specified tracks.

Certificate in Cyber Security Systems

Cyber Security Fundamentals (course taken by all students)

Remaining courses taken within a selected Track

Track #1: Computer Science (CS)

Track #2: Internal Audit (IA) and Information Management (IM)

Track #3: Systems Engineering and Management (SYSM)

Admission and matriculation is through Department of Systems Engineering (and administered through the Systems Engineering & Management MS-SEM Program)

Internal Audit, Information Management (IA/IM Track)

- IT Security (MIS 6330)
- IT Audit & Risk Management (ACCT 6336)

Choose one more course from:
- Internal Audit (ACCT 6330)
- Cloud Computing (MIS 6363)

Computer Science (CS Track)

Choose three (3) courses from:
- Information Security (CS 6324)
- Network Security (CS 6329)
- Data/App Security (CS 6348)
- One approved CS Elective in Cyber Security

Systems Engineering and Management (SYSM Track)

Students take at least one course from each of the CS and IA/IM tracks, according to:
- Systems Engrg., Arch., & Design (SYSM 6302)
- CS 6324 or MIS 6330
- ACCT 6336/ACCT 6380/MIS 6363 or CS 6348/CS 6349
Appendix C – CCSS Course Descriptions and Instructors

The following table provides course numbers and instructors across the three tracks (color coded), in addition to the common fundamentals course (please note that the prefix “SYSM” refers to the Systems Engineering and Management MS-SEM program).

<table>
<thead>
<tr>
<th>Course #</th>
<th>Instructor</th>
<th>School</th>
<th>Track(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS/SYSM 63xx (new course, TBD)</td>
<td>Chris Davis</td>
<td>JSOM/ECS</td>
<td>(all four)</td>
</tr>
<tr>
<td>CS 6324</td>
<td>Zhiqiang Lin</td>
<td>ECS</td>
<td>CS, SYSM</td>
</tr>
<tr>
<td>CS 6348</td>
<td>Bhavani Thuraisingham</td>
<td>ECS</td>
<td>CS, SYSM</td>
</tr>
<tr>
<td>CS 6349</td>
<td>Kamil Sarac</td>
<td>ECS</td>
<td>CS, SYSM</td>
</tr>
<tr>
<td>CS 6301</td>
<td>(multiple special topics courses in cyber security, taught by various instructors)</td>
<td>ECS</td>
<td>CS (electives)</td>
</tr>
<tr>
<td>CS 6377</td>
<td>Yvo Desmedt</td>
<td>ECS</td>
<td>CS (elective)</td>
</tr>
<tr>
<td>CS 7301</td>
<td>Zhiqiang Lin</td>
<td>ECS</td>
<td>CS (elective)</td>
</tr>
<tr>
<td>MIS 6330</td>
<td>Huseyin Cavusoglu</td>
<td>JSOM</td>
<td>IA/IM, SYSM</td>
</tr>
<tr>
<td>MIS 6363</td>
<td>Gurvinder Ahluwalia</td>
<td>JSOM</td>
<td>IA/IM, SYSM</td>
</tr>
<tr>
<td>ACCT 6380</td>
<td>Mark Salamasick</td>
<td>JSOM</td>
<td>IA/IM, SYSM</td>
</tr>
<tr>
<td>ACCT 6336</td>
<td>Mark Salamasick</td>
<td>JSOM</td>
<td>IA/IM, SYSM</td>
</tr>
<tr>
<td>SYSM 6301</td>
<td>Dr. Kendra Cooper</td>
<td>ECS</td>
<td>SYSM</td>
</tr>
</tbody>
</table>

In the following, catalog descriptions of courses from the table above are provided, where the only new course (currently under development for offering in Spring 2014 semester) is the fundamentals course common to all tracks.

(new) MIS 63xx (SYSM 63xx) – Cyber Security Fundamentals (3 credit hours) This course provides a fundamental overview of the objectives in cyber security systems and lays a foundation for subsequent topical courses in the area of cyber security systems. Topics covered include: security risk assessment and management; policies, procedures and guidelines for information security programs; IT security controls and technologies, security standards, compliance, and cyber laws; IT auditing; cyber insurance strategies; and emerging topics. Prerequisites: none (3-0) Y

CS 6324 - Information Security (3 semester hours) A comprehensive study of security vulnerabilities in information systems and the basic techniques for developing secure applications and practicing safe computing. Topics include common attacking techniques such as buffer overflow, Trojan, virus, etc. UNIX, Windows and Java security. Conventional encryption. Hashing functions and data integrity. Public-key encryption (RSA, Elliptic-Curve). Digital signature. Watermarking for multimedia. Security standards and applications. Building secure software and systems. Management and analysis of security. Legal and ethical issues in computer security. Prerequisite: CS 5348 and CS 5343. (3-0) Y

CS 6348 - Data and Applications Security (3 semester hours) The course will teach principles, technologies, tools and trends for data and applications security. Topics to be covered include: confidentiality, privacy and trust management; secure databases; secure distributed systems; secure multimedia and object systems; secure data warehouses; data mining for security applications; assured information sharing; secure knowledge management; secure collaboration; secure digital libraries; trustworthy semantic web; biometrics; digital forensics; secure e-commerce; secure sensor information management and secure social networks. Students will take one system or application and develop a secure version of that system or application for the programming project. Prerequisite: CS 5343 (3-0) Y

CS 6349 - Network Security (3 semester hours) This course covers theoretical and practical aspects of network security. The topics include use of cryptography for building secure communication protocols and authentication
systems; security handshake pitfalls, Kerberos and PKI, security of TCP/IP protocols including IPsec, BGP security, VPNs, IDSes, firewalls, and anonymous routing; security of TCP/IP applications; wireless LAN security; denial-of-service defense. Students are required to do a programming project building a distributed application with certain secure communication features and required to participate in several network security lab exercises and cyber war games. Prerequisite: CS 5390 (3-0) Y

**CS 6377 - Introduction to Cryptography** (3 semester hours) This course covers the basic aspects of modern cryptography, including block ciphers, pseudorandom functions, symmetric encryption, Hash functions, message authentication, number-theoretic primitives, public-key encryption, digital signatures and zero knowledge proofs. Prerequisites: CS 5333 and CS 5343. (3-0) T

**CS 7301 - Recent Advances in Computing: “Operating Systems Security”** (3 semester hours) Advanced topics and publications will be selected from the theory, design, and implementation issues in computing. May be repeated for credit as topics vary. Prerequisite: Consent of the instructor. (3-0) Y

**MIS 6330 - Information Technology Security** (3 semester hours) With the advances in information technology, security of information assets has become a keenly debated issue for organizations. While much focus has been paid to technical aspects of the problem, managing information security requires more than technology. Effective information security management demands a clear understanding of technical as well as socio-organizational aspects of the problem. The purpose of this course is to prepare business decision makers to recognize the threats and vulnerabilities present in current information systems and who know how to design and develop secure systems. This course (1) uses lectures to cover the different elements of information security, (2) utilizes business cases and academic research studies to discuss information security issues faced by today's businesses, (3) keeps in touch with the security market and practices through webcasts, and (4) presents strategies and tools to develop an information security program within the organization. (3-0) Y

**MIS 6363 - Cloud Computing** (3 semester hours) This course is designed as a primer for cloud computing which many believe is the third major wave of computing, after mainframe and client-server computing. The course examines this technology from a business perspective. The course is designed to deliver a holistic and balanced view of business model, technological infrastructure, and security issues of cloud computing useful for the technology student to understand the business challenges and the business student to understand the technology challenges. (3-0) R

**ACCT 6380 - Internal Audit** (3 semester hours) The course covers internal audit from a broad perspective that includes information technology, business processes, and accounting systems. Topics include internal auditing standards, risk assessment, governance, ethics, audit techniques, and emerging issues. This is the first course leading to Endorsed Internal Audit Certificate and will prepare students to sit for the Certified Internal Auditor Exam. (3-0) Y

**ACCT 6336 - Information Technology Audit and Risk Management** (3 semester hours) Management's role in designing and controlling information technology used to process data is studied. Topics include the role of internal and external auditors in systems development, information security, business continuity, information technology, internet, change management and operations. Focus is placed on the assurance of controls over information technology risks and covers topics directly related to the Certified Information Systems Auditor (CISA) exam. (3-0) Y

**SYSM 6301 (CS 6301) Systems Engineering, Architecture and Design** (3 credit hours) Architecture and design of large-scale and decentralized systems from technical and management perspectives. Systems architectures, requirements analysis, design tradeoffs, and reliability through case studies and mathematical techniques. International standardization bodies, engineering frameworks, processes, notations, and tool support from both theoretical and practical perspectives. Prerequisites: none (3-0) Y
Appendix D – Assessment Plan
Appendix E – Letters of Support
CERTIFICATE PROGRAM ASSESSMENT PLAN

FOR ACADEMIC YEAR: 2014-2015
PROGRAM: Certificate Program in Cyber Security Systems (graduate)
SCHOOL: Erik Jonsson School of Engineering and Computer Science
SUBMISSION DATE: 9/25/13

University Mission: The University of Texas at Dallas provides the State of Texas and the nation with excellent, innovative education and research. The University is committed to graduating well-rounded citizens whose education has prepared them for rewarding lives and productive careers in a constantly changing world; to continually improving educational and research programs in the arts and sciences, engineering, and management; and to assisting the commercialization of intellectual capital generated by students, staff, and faculty.

Program Mission: Provide a structured, focused and formalized education in a large, growing unmet need in the field of cyber security systems which spans traditional computer science, traditional engineering management, as well as segments of the fast-growing field of systems engineering, and which have a very significant societal impact. The field of cyber security systems is at the intersection or overlap of traditional disciplines of study not only in engineering and in management, but also in the natural sciences, social sciences, as well as arts and humanities. This program will employ rigorous quantitative, as well as qualitative methods, leveraging the best faculty in two of the largest and most-quantitatively oriented schools on campus – ECS and JSOM.

PROGRAM LEARNING OUTCOMES: Graduates will be able to:
1. Evaluate and apply fundamental strategies, tools, and objectives of cyber security systems
2. Recognize and appraise common information security threats and vulnerabilities
3. Identify, assess, manage, and mitigate risk in various applications utilizing cyber security systems
4. Interpret and create information security policies, procedures, and guidelines in a variety of systems
5. Analyze and apply internal audit standards and encryption control policies

ASSESSMENTS For every course taught in the Erik Jonsson School, the course owners, along with the instructors who regularly teach that course, decide on the Course Learning Outcomes (CLOs) of the course based on the course syllabi and how the selected CLOs are mapped on to the Student Outcomes (SOs). The CLOs for each course are subject to review by the departmental graduate committee. Currently, the Erik Jonsson School’s academic programs use performance vectors to measure the performance, on each CLO, of the students enrolled in each course and section. The components of a performance vector are the numbers of students who have attained each of four levels of performance on each CLO. The performance levels are the following: Exceeding the performance criteria for a given CLO, meeting the criteria, progressing to the criteria, and below expectations. The faculty assessment process is direct, based on quantitative data collected through the assessment of CLOs. At the end of every semester, each instructor of a course is required to fill out a course assessment form for that course. The course assessment form carries quantitative information on the extent to which the each student has attained each CLO that has been defined for the course. The course instructor is also required to provide information on what rubrics are used to evaluate the performance on each CLO. The information used to evaluate a CLO can vary from one CLO to another, but is never based on the final grades in the course. The information used for assessment and evaluation of the CLOs is only a subset of the information used to determine the final course grade. We use the performance vectors of selected core classes to assess program-level SOs. The Erik Jonsson School contracted with UNTRA Corporation to become a partner in the application and development of the AEFIS (Academic Evaluation, Feedback and Intervention System) software platform to meet the evolving requirements of assessment and accreditation. AEFIS will provide unified documentation of all aspects of the SACS assessment processes, and will permit instructors, course owners, department heads and the Office of Assessment to input, analyze and evaluate all assessment information. AEFIS will be used for course and program assessments.
Appointees to Information Resources, Planning, and Policy Committee

FACULTY
- Syam Menon (M) (8/31/2015) Chair
- Todd Flechter (AH) (8/31/2015) Vice Chair
- Thomas Campbell (B) (8/31/2015)
- Todd Fechter (A) (8/31/2015)
- Daniel Arce (EP) (8/31/2014)
- Latifur Khan (M) (8/31/2014)
- Bert Moore (B & Dean) (8/31/2015)
- Mark Spong (EC & Dean) (8/31/2014)

EX OFFICIO (With Vote)
- University Chief Information Security Officer

STAFF
- Audit & Compliance – Toni Messer (8/31/2015)
- Administration – Randal Rikel (8/31/2015)
- Research Compliance – Sanaz Okhovat (8/31/2015)

STAFF COUNCIL
- Arturo Elizondo (8/31/15)

RUO
- Vice President, Chief Information Officer
Institutional Animal Care and Use Committee - UTDPP1014

Policy Charge

Animal Care and Use

Policy Statement

The Institutional Animal Care and Use Committee is a University-wide Standing Committee appointed by the President not reporting to the Academic Senate of The University of Texas at Dallas.

The Committee operates under the Principles for Use of Animals, the U.S. Department of Health and Human Services "Guide for the Care and Use of Laboratory Animals," the U.S. Department of Agriculture Animal and Plant Inspection Service, the Animal Welfare Acts, and other applicable laws and regulations. The Committee is charged to maintain oversight of the University's animal care program, annually advise the University on policies and procedures with regard to its animal care program and assure the humane care and use of animals used or intended for use in all research, research training, experimentation, teaching, or biological testing or for related purposes involving live, vertebrate animals. In keeping with this charge, no research or other activities involving the use of animals may commence without the written approval of the Committee. The Committee is also charged to assure the humane care and use of animals used in projects awarded to the University by the National Institute of Health (NIH). In addition, the committee is charged to perform the following duties:

1. Inspect University facilities and review procedures for the care and use of animals at least twice each year to ensure that the University is in compliance with the Animal Welfare Act, the NIH "Guide for the Care and Use of Laboratory Animals," and U.S. Department of Agriculture Animal and Plant Inspection Service.
2. Receive and review questions or complaints from any source concerning the welfare of University animal subjects. If the conduct of a specific project is to be reviewed, the quorum will not include any member having an active role in the project.
3. Semi-annually make written recommendations to the Vice President for Research regarding any aspect of the University's animal program.
4. Review and approve, require modification in (to secure approval), withhold approval of, or suspend any research or activity, new or ongoing, including but not limited to proposals submitted to funding agencies, that involves the use of animals.
5. Notify investigators, University and appropriate funding agencies, through the Vice President for Research, of its decision to approve or withhold approval or suspend any research or instructional activity, new or ongoing, that involves the use of animals.

Members of the Institutional Animal Care and Use Committee must have appropriate education and experience to perform their duties with respect to the types of animals and species used and the kinds of projects to be undertaken. One member of the Committee must be a Doctor of Veterinary Medicine,
with training in laboratory animal science and medicine. One member of the Committee must be a community person, not affiliated with the University in any way other than as a member of the Committee, and not a member of the immediate family of a person who is affiliated with the University. One member of the Committee must be a person whose primary concerns are in a nonscientific area. One member of the Committee must be a practicing scientist experienced in research involving animals. Any individual who meets the requirements of more than one of the categories listed above may fulfill more than one requirement.

The Committee shall be composed of no fewer than six members appointed by the President. The terms of office of the Committee members shall be for three years and members may be reappointed by the President for additional terms. If for any reason a Committee member resigns, the President shall appoint another qualified individual to serve the remainder of the unexpired term. The Vice President for Research and the University Chief of Police serve as ex officio members with vote. Changes in membership will be reported annually to the Office of Protection from Research Risks, NIH. The Chair and Vice Chair of the Committee shall be appointed annually by the President.

The Vice President for Research shall be the Responsible University Official for the Committee, with oversight of all animal facilities. All information concerning Committee activities, reports, and other related documents and approvals shall be housed in the Office of the Vice President for Research. The Vice President for Research shall be responsible for the submission of annual reports to appropriate government agencies.

**Policy History**

- Issued: August 1, 1979
- Revised: September 1, 1981
- Revised: September 1, 1983
- Revised: May 3, 1991
- Revised: June 1, 1994
- Editorial Amendments: February 2, 1998
- Editorial Amendments: September 1, 2000
- Revised: June 24, 2002
- Editorial Amendments: April 10, 2006
- Editorial Amendments: January 11, 2007
- Revised: June 4, 2009
- Revised: August 17, 2011

**Policy Links**

- Permalink for this policy: [http://policy.utdallas.edu/utdpp1014](http://policy.utdallas.edu/utdpp1014)
- Link to PDF version: [http://policy.utdallas.edu/pdf/utdpp1014](http://policy.utdallas.edu/pdf/utdpp1014)
- Link to printable version: [http://policy.utdallas.edu/print/utdpp1014](http://policy.utdallas.edu/print/utdpp1014)
The IACUC recommends (and these people have agreed, if asked, to serve) adding these 3 individuals:

- Dr. Li Zhang, Professor of Biology -- current PI using animals in the facility. This will bring faculty members up to 5, the largest number it's been, two from BBS, two from Biology, and 1 from Engineering, hence representing all of the research stakeholders.

- Kelly Kinnard, Director of Physical Plant Services -- with all of the scheduled construction adjacent to NSERL/new biological sciences building/infrastructure support needed, and need to develop emergency plans, Kelly would be a vital resource.

- Bill Alsup, Director of Health for the City of Richardson -- an additional community member.

The committee felt these additions would be valuable, without unnecessarily impeding the efficiency of its review and decision making processes.

-Tres Thompson
IACUC Chair
TO: Murray Leaf, Speaker of the Faculty Senate
FROM: Theresa Towner, Chair, Committee on Effective Teaching
RE: CET Agenda 2012-13

The University’s Committee on Effective Teaching met 15 October 2012. Pursuant to the Committee’s charge, I report to you our agenda for the academic year:

1. Continue the 2011-12 CET investigation and evaluation of the roles played by School-level teaching effectiveness committees.
2. Investigate and define the degree and kind of CET’s participation in the nomination and awarding of the Regents’ Teaching Awards.
3. Investigate and evaluate the means by which Schools monitor the teaching effectiveness of part-time instructors, including graduate teaching assistants.
4. Investigate, with the help of the Provost’s technical team, ongoing issues of access to teaching evaluations and their relationships to student grades, including but not limited to: the linking of student access to course grades and the submission of course evaluations; associate dean access to written comments on course evaluations for the purpose of evaluating part-time instructors; and numbers of and statistical trends in course evaluations over time.
5. Investigate the feasibility of establishing a video library or Wiki of resources for faculty addressing common questions and problems encountered in the classroom, including the challenges faced by teachers of online courses, with particular attention to the content rather than the technical aspects of such questions.
6. Investigate the feasibility and desirability of establishing a University-wide Center for Teaching and Learning, such as those presently in operation at Harvard, MIT, and UT-Austin, for example.
Pursuant to its charge, the Senate’s Committee on Effective Teaching met four times during this academic year: 15 October and 28 November 2012 and 6 February and 6 March 2013. During these meetings we discussed the items on the agenda I submitted to you in a memo dated 16 October 2012. Below are those agenda items and the conclusions reached in our deliberations.

1. Continue the 2011-12 CET investigation and evaluation of the roles played by School-level teaching effectiveness committees.
   We discovered large discrepancies between each School’s officially designated procedures and the actual practices of evaluating teaching. We decided that rather than try to design one set of evaluation procedures for the University, we would be more effective to encourage each School to revisit those procedures, refine them as necessary to be both practical to implement and fair to individual instructors, and then follow their own guidelines.

2. Investigate and define the degree and kind of CET’s participation in the nomination and awarding of the Regents’ Teaching Awards.
   We agreed that CET should vet the list of Regents’ Award nominees in conjunction with the Office of Undergraduate Education. Dean Pineres subsequently forwarded the list of nominees to us, and several of us agreed to read and rank individual application files.

3. Investigate and evaluate the means by which Schools monitor the teaching effectiveness of part-time instructors, including graduate teaching assistants.
   We discovered a wide range of practices, some of which were outlined in School bylaws and some of which were not. We agreed that the evaluation of part-time faculty is vitally important, especially in light of the University’s increasing dependence on adjuncts. We recommend that the Senate encourage individual Schools to evaluate and keep records on the teaching of adjunct faculty.

4. Investigate, with the help of the Provost’s technical team, ongoing issues of access to teaching evaluations and their relationships to student grades, including but not limited to: the linking of student access to course grades and the submission of course evaluations; associate dean access to written comments on course evaluations for the purpose of evaluating part-time instructors; and numbers of and statistical trends in course evaluations over time.
   We discussed these issues at every meeting and, with the help of the Provost’s technical team, finally concluded that the issue of the accuracy of student evaluations is a moving target. Much anecdotal evidence was offered by committee members and the general faculty, and many statistics were offered. We conclude that CET will always discuss these issues as technical elements of evaluations evolve and will never, in fact, conclude anything about them. I would like to acknowledge the expertise of Mr. Simon Kane and his help during our discussions.

5. Investigate the feasibility of establishing a video library or Wiki of resources for faculty addressing common questions and problems encountered in the classroom, including the challenges faced by teachers of online courses, with particular attention to the content rather than the technical aspects of such questions.
We concluded that this is one area in which the University would be the proper venue for such materials. See item 6 below.

6. Investigate the feasibility and desirability of establishing a University-wide Center for Teaching and Learning, such as those presently in operation at Harvard, MIT, and UT-Austin, for example.

We invited Professors Patricia Michaelson and Homer Montgomery to our meeting on 6 February to explain to us the role of such centers on other campuses and the more general benefits of having on campus specialists in the scholarship of teaching and learning. We saw these easily and agreed to address the Senate directly to explain them; Professors Michaelson, Montgomery, Karen Huxtable-Jester, and I attended the Senate meeting on 20 February and at the request of that body submitted a motion to create and staff a campus Teaching and Learning Center. The Senate unanimously approved that motion at its next meeting, and President Daniel advised creating a place marker for it in the pending budget.
The discussions at these meetings are summarized below.

1. **Academic Dishonesty Cases Review-**
   The total number of Academic Dishonesty cases continues to be in agreement with other universities our same size. Charges included plagiarism, cheating, collusion, and falsifying data records.

2. **Testing Center-**
   The Testing Center procedures were reviewed and options to increase faculty awareness were discussed. A recommendation should be made that schedule changes should not be made for students with disabilities because of the challenges they face.

3. **Alternate Testing Options-**
Proctor U was investigated as an option for students to take exams at home under video monitoring through webcams. With the opening of the testing center on campus, the need for such an alternative was not widely accepted by the committee.

4. Faculty awareness of policies-
The need to increase faculty awareness about policies related to academic integrity was addressed. Rather than asking each Dean to hold an informational meeting, a suggestion was made to provide something faculty could review with minimal disruptions to their schedule. A powerpoint presentation, “Keys to Academic Integrity” was developed and reviewed by the committee. A revision was made based on feedback for committee approval at next meeting. Once approved this could be sent to all faculty at the beginning and near the end of each semester.

5. Honor Code-
The pros and cons of a UTD Honor Code were discussed. Many thought just having the Code without requiring students to sign it, would raise student/faculty awareness. Several Honor Codes at other comparable universities were reviewed and there was unanimous support for continuing to develop this. Input from student government was strongly advised as the next step in the consideration of developing an Honor Code at UTD.

The following matters should be addressed in 2012-2013

1. Establish a subcommittee of faculty, administrators, and students to develop a proposal for an Honor Code for UTD students.
2. Review revision of powerpoint file, “Keys to Academic Integrity” that was completed based on feedback from the last committee meeting. Make final version for consideration of mass distribution.
3. Consider making a recommendation for Provost to send the powerpoint file, “Keys to Academic Integrity” to all faculty for reminders of ways to enhance academic integrity on campus.
4. Continue to monitor reports from the Dean of Students on the number of cases of Academic Dishonesty.
September 26, 2013

MEMORANDUM

TO: The Academic Council
FROM: Judy L. Barnes, Director of University Events
SUBJECT: Annual Report of the Commencement Committee, 2012-2013

1. Membership

The Commencement Committee is a University-wide Standing Committee appointed by the President not reporting to the Academic Senate, The University of Texas at Dallas.

The voting members of the Commencement Committee included two members of the faculty, Kathryn Evans (School of Arts and Humanities) and Doug Kiel (School of Economic, Political and Policy Sciences); and two student representatives including the President of Student Government, Rajiv Dwivedi, and Undergraduate Student, Martha Gutierrez.

Non-voting members included: Director of University Events, Judy Barnes (Chair); Speaker of the Faculty, Murray Leaf (Vice Chair); University Registrar and Director of Academic Records, Jennifer McDowell; Associate Vice President for Business Affairs, Rick Dempsey; Dean of Undergraduate Education, Sheila Pineres; Dean of Graduate Studies, Austin Cunningham; Chief of Police, Larry Zacharias; Student Health Services Director, Lea Aubrey; Bookstore Manager, Brian Weiskopf; Dean of Students, Gene Fitch; Media Services Representative, Caroline Crossley; Alumni Relations Representative, Erin Dougherty. Rena Piper, Special Events Coordinator from the Office of the President has also been a regular attendees appointed by the Chair.

2. Meetings

Two meetings of the Commencement Committee were conducted during the 2012-2013 academic year. A meeting held on September 25, 2012 discussed the Spring, 2012 ceremonies results and upcoming Fall, 2012 ceremonies. [Meeting agenda and minutes are attached.]

The second meeting of the Committee was held on January 31, 2013 to discuss Fall, 2012 results and in preparation for the Spring, 2013 commencement ceremonies. [Meeting agenda and minutes are attached.]
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<td>Ex-Officio</td>
<td>Judy</td>
<td>Barnes</td>
<td>Director of University Events (Chair)</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Ex-Officio</td>
<td>Lea</td>
<td>Aubrey</td>
<td>Student Health Services Director</td>
<td>x</td>
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<tr>
<td>Ex-Officio</td>
<td>Caroline</td>
<td>Crossley</td>
<td>Media Services Representative</td>
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Commencement Committee Meeting
September 25, 2012
Agenda

I. Welcome
   a. New Committee Members

II. Review of Spring 2012 Commencement
   a. Gonfalons
   b. Comet Cabs
   c. Ticket Allocation

III. Fall 2012 Commencement
   a. Initial Application Numbers
   b. Ceremonies
   c. Earlier Dates
   d. Countdown to Commencement—October 9

IV. Discussion
   a. Student Speakers
   b. Electronic Tickets
   c. School Advisors for Check-in
Commencement Committee Meeting  
September 25, 2012  
Minutes

I. In attendance: Judy Barnes, Caroline Crossley, Austin Cunningham, Rick Dempsey, Melinda Ellis (in lieu of Erin Dougherty), Jennifer McDowell, Murray Leaf, Sheila Pineres, Rena Read, Brian Weiskopf, Kathryn Evans, Rajiv Dwivedi, and Martha Gutierrez

II. Welcome

   a. New Committee Members – members of the committee introduce themselves.

III. Review of Spring 2012 Commencement

   a. Gonfalons – provided a nice backdrop for commencement and a since of honor. Students wanted to take their picture with them after the ceremony concluded. In order to accommodate this request, we will look to place them outside towards the end of the walkway to allow access for pictures.

   b. Comet Cabs – Paul Smith kept track of everyone who used them and they were used by a large amount of our campus guest with positive feedback. This Fall we will have 5 14-passenger cabs for commencement use.

   c. Ticket Allocation – we only resulted in using the overflow space in the conference center for one of the ceremonies. We will add a 7th ceremony next spring that will allow for JSOM to have 3 mixed ceremonies. This will result in ceremonies being held on Thursday, Friday, and Saturday.

IV. Fall 2012 Commencement

   a. Initial Application Numbers – Dean Pineres would like to extend the application date or at least the late fee application date with the stipulation that if they apply after the deadline they will not be included in the program. She will discuss further among the deans.
b. Ceremonies – Egress continued to work well however, due to school parties being held prior to the ceremonies, students were arriving late. Committee recommends that we ask Dr. Daniel to restrict school parties to be held the night prior or following the conclusion of their commencement ceremony.

c. Earlier Dates – Ceremonies are held earlier in the semester this year during regular class times. It is decided that we should stress these dates to the campus in an effort to prevent other parties from being planned during this time.

d. Countdown to Commencement—October 9 – Judy Barnes will have flyers made advertising the Student Speaker Application in efforts to get more interest.

V. Discussion

a. Student Speakers – We have received poor interest during the past few ceremonies. Graduation Office sent the information out with their graduation emails. There will also be an ad in the Mercury publication on October 8 & 22. At the suggestion of Rajiv Dwivedi, we will post the information in OrgSync advertising that they will earn extra tickets if selected. Additionally, Rena Read will have information listed in the Senior Scoop that goes out on October 5.

b. Electronic Tickets – We will move forward with issuing electronic tickets this fall in efforts to decrease man power in distribution, as well as human error, and duplication of tickets. Electronic tickets are being created using University Tickets as our vendor.

c. School Advisors for Check-in – since tickets will no longer be picked up at the Graduation Office, we now need to decide how we will issue walking cards. Dean Pineres suggested that we ask the Dean’s Caucus how they would like to handle the distribution of their walking cards and ask them to settle on one choice for all schools (i.e. having the students pick them up beforehand in their office or having staff at the commencement ceremonies to pass them out at check-in). Judy Barnes will present this to the next Dean’s Caucus on Thursday, October 18.
Commencement Committee Meeting
January 31, 2013
Agenda

I. Welcome

II. Fall 2012 Commencement Recap
   a. Numbers
   b. New adds:
      Use of VCB Atrium as overflow
      Online ticketing system and allocation
      Earlier dates – took place before finals
      Schools responsible for distributing walking cards

III. Spring 2013 Commencement
    a. Initial Application Numbers
    b. Ceremonies
       Do we add a 7th ceremony
    c. Student Speakers

IV. Discussion
   a. Comet Countdown – Feb. 5
   b. Feedback from areas
   c. Fall 2013 Dates
Commencement Committee Meeting  
January 31, 2013  
Agenda

I. In attendance: Judy Barnes, Caroline Crossley, Rick Dempsey, Erin Dougherty, Kathryn Evans, Gene Fitch, Jennifer McDowell, Murray Leaf, Sheila Pineres, Rena Piper, Wanda Trotta (in lieu of Austin Cunningham) Brian Weiskopf, and Larry Zacharias

II. Welcome

III. Fall 2012 Commencement Recap

a. Numbers – Judy reviewed numbers with the committee. The new ticketing system allowed us to view how many guests attended as well.

b. New adds:
   - Use of VCB Atrium as overflow – It worked nicely for the Fall ceremonies. We will continue to use this space for future ceremonies.
   - Online ticketing system and allocation – Only encountered one issue when the campus network went down but we were able to work through it. Everyone had a positive reaction to the new system.
   - Earlier dates – took place before finals – A&H encountered a problem with their Fall performance so next year they will do the event the evening following commencement. Staff working commencement had an overall positive reaction to the earlier dates.
   - Schools responsible for distributing walking cards – This new process worked well and the schools will continue with this process in the future.

IV. Spring 2013 Commencement

a. Initial Application Numbers – Judy reviewed numbers with the committee

b. Ceremonies – We will reach out to Deans asking for them to talk to their faculty during their faculty meetings about earlier dates and participation in ceremonies.
• Do we add a 7th ceremony – Due to the amount of students graduating from JSOM, it will be necessary to have 3 ceremonies for them. It was agreed to move JSOM ceremonies to Saturday instead of the traditional Friday. We will have one ceremony on Thursday, three on Friday, and three on Saturday. Because the Honors ceremony uses the commencement set-up, we will have their ceremony at 1pm preceding the 4pm commencement ceremony on Thursday. This will conflict with the Hooding ceremony.

c. Student Speakers – We have experienced difficulty with getting students to apply for the speaker opportunity. Dean Pineres has agreed to reach out to the faculty and advisors to seek their help in finding suitable students.

V. Discussion

a. Comet Countdown – Feb. 5

b. Feedback from areas

c. Fall 2013 Dates – December 6 and 7, at 10am, 1pm, and 4pm – A&H as a later ceremony in order to invite guests to their performance.
Information Security Advisory Committee
Report on Committee Activities in 2012-2013 Academic Year

September 20, 2013

The Information Security Advisory Committee (ISAC) was constituted by the Academic Senate in 2012 to advise the University of Texas at Dallas Information Security Officer in planning and testing measures to provide security of the university’s information resources in such a way as to comply with UT System security requirements for university information.

Appointment of the following members of the faculty was approved by the Senate in their meeting on November 28, 2012: Ravi Prakash (Chair), Dinesh Bhatia, Kevin Hamlen, Joe Izen, Tim Redman and Tres Thompson.

The loss and theft of a few laptops of some researchers has triggered extreme measures by the UT System to ensure confidentiality of data. All campuses have been mandated to implement full hard-disk encryption for all laptop computers. On each campus it is the responsibility of the President and the Chief Information Security Officer (CISO) to ensure that the mandate is implemented in a timely manner.

Over two meetings and multiple rounds of email exchanges the ISAC compiled a list of questions that were posed to the campus CISO on February 22, 2013. Responses to these questions were requested within two weeks. The CISO’s responses were received on March 4, 2013. Based on its deliberations and the responses received from the CISO, ISAC reached the following conclusions:

1. Faculty input was not sought in formulating the security mandate. Domain experts doing research in the area of information security were not consulted.

2. Faculty members use laptop computers for a variety of tasks, including teaching and research. Sometimes the laptop computer is the instrument used to gather live research data. There are instances where the laptop computer itself is the research subject. However, while formulating the mandate only a generic use-case scenario appears to have been considered, namely that of the laptop being used for general purpose document preparation, email communication and web access only.

3. A scientific performance evaluation of the encryption software was never conducted. A number of older laptop computers had to be decommissioned. Relatively new machines have taken a performance hit. Some useful capabilities have been disabled. The ability of vendors to service laptop computers has been severely compromised. Claims were made by the CISO that there was no performance degradation. However, the committee found no support for this claim by any reputed, independent, product-testing organization, and believes that this claim is based on marketing hype promulgated by one hardware manufacturer. Any assessment of the cost of this mandate, both in terms of hardware obsolescence and productivity loss, is at best unreliable and inadequate.

4. Full disk encryption implementation plan, as proposed by the CISO, was centralized and non-scalable. All requests for exemption from disk encryption had to be ultimately approved by the UT System. As per the CISO, decisions on exemption requests were to be notified within a month. In early April
of 2013, even the fact that exemption requests can be made was not known to most members of the faculty. Yet, with a very limited number of exemption requests to process, the UT System had been unable to meet its decision making timeline. Exemption requests from two members of the committee took significantly longer to process: six months in one instance, and two months in the other.

A one-size-fits-all solution for data security across all UT System campuses is ill-advised. On any campus, it deprives the faculty, President, and the CISO of the opportunity to work together to devise a solution that is most suited for the needs of that campus. Such a solution will have (and is already having) an immediate, deleterious, and potentially catastrophic impact on certain university activities that do not match the limited use-case scenario considered by the mandate – most notably scenarios that involve research.

In its April 10, 2013 meeting ISAC shared the concerns mentioned above with the CISO and CIO of the university as well as with Mr. Lewis Watkins, CISO of UT System. ISAC members argued that members of the faculty routinely work with toxic chemicals, pathogens, radioactive material, etc. and a number of university-wide committees maintain oversight on such activities. To date these committees have been very effective in developing sensible solutions that meet the unique needs of UT Dallas. Hence, ISAC should be modeled along the lines of the following committees:

- Institutional Biosafety and Chemical Safety Committee,
- Institutional Animal Care and Use Committee, and
- Radiation Safety Committee

The UT System CISO and UTD CIO agreed with the need to address the issue of information security in general, and laptop encryption in particular, with the involvement of the faculty, leveraging their expertise, and sensitive to their research and teaching needs.

In its meeting on May 15, 2013 the Academic Senate amended ISAC’s charge to reflect that approval/non approval of laptop encryption requests be made at the local level, and not at the system level. Membership of ISAC was also expanded to include two external domain experts.

In conclusion, ISAC has worked diligently to ensure that the teaching and research needs of UTD faculty are safeguarded when information security solutions are developed and implemented. The committee has had an excellent working relation with the university CIO. We look forward to working in a collaborative and collegial manner with the newly appointed Director of Information Security.