

# MSIS 5213: Information Assurance Management

## Spring Semester 2016

**Sections:**

MSIS 5213.503

Distance

**Instructor:** Dr. Jim Burkman

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**Homepage:** <http://oc.okstate.edu>

**Office:** BUS 311C

**Office hours:** Monday 9-11 and 1-4, also by appointment

**Phone:** 744-5142

**Club:** <http://isac.okstate.edu>

**Textbooks:** *None*

**Study aids:** Anki Flashcards <http://ankisrs.net/>. You may not distribute my flash cards to anyone or post them in any format on any website.

**The OSU Spring Syllabus Attachment includes important dates, information, and resources to HELP YOU SUCCEED and is available on the course D2L site.**

**Distance Learning Office:** [spearsdistance@okstate.edu](mailto:spearsdistance@okstate.edu)

405-744-4048

Twitter: @spearsdistance

**Exam Administration:** Each exam for this course is to be administered at a testing center during the designated time frame noted in the syllabus.

Prior to the first exam, go to: <http://spears.okstate.edu/distance/forms/> and complete two forms: Student Information Form and/or Proctor Agreement form.

This indicates to the Spears School of Business Distance Learning office where you plan to take the exams. If you plan to test at either the OSU-Tulsa, OSU-OKC or OSU-Stillwater Testing Centers, complete only one form; the Student Information Form.

If you are testing at a location other than an OSU campus as mentioned above, please complete both forms, Student Information Form where you will select 'other', and Proctor Agreement Form.

The OSU-Stillwater campus has two testing facilities: Wes Watkins Center and University Assessment and Testing. The Wes Watkins Center phone number is 405.744.6390; the University

Assessment & Testing Office phone number is, and 405.744.6687, and you must call to make an appointment a couple of days prior to exam date period. The OSU-Tulsa Testing Center can be contacted at 918.594.8232. For OSU-OKC call 405.945.8648. All three testing centers charge a testing fee. Once you have decided on a testing center to go to, complete forms, as stated above. For more information about the testing and proctoring procedure, visit <http://spears.okstate.edu/distance/guide/procedures/>, or call the Spears School of Business Distance Learning office at 405.744.4048. There is a suggested list of testing centers at this same website. It is not a comprehensive list of all sites worldwide, but it does list options.

ProctorU is available to use in this class as a proctor in addition to using a testing center. ProctorU is a live online proctoring service that allows exam takers to complete their exams at home while still ensuring the integrity of the exam. Using almost any webcam and computer, you can take exams at home, at work, or anywhere you have internet access. ProctorU testing fee ranges from \$8.75 to \$30, depending on the length of completing the exam, and can be paid online through debit or credit card.

A special note, ***if you will be outside of the United States during the class exam periods, ProctorU is the only testing option for you.*** To watch a How It Works video, visit this link: <http://www.proctoru.com/howitworks.php>. To check your computer and internet connection meets all technical requirements visit this link: <http://www.proctoru.com/tech.php>. To select ProctorU as your proctor this semester please complete a Student Information Form: <https://spears.okstate.edu/distance/forms/studentform/>. By completing this form it keeps the Spears School of Business Distance Learning Office informed who your proctor will be. If you have any questions please contact the Distance Learning Office at 405-744-4048 or [spearsdistance@okstate.edu](mailto:spearsdistance@okstate.edu).

**Course Description:** Information Assurance (IA) is the cornerstone of business security and has become recognized as a critical element of national security. This class is the first within the OSU MSIS Department's IA curriculum and is designed to familiarize you with the basics of IA management.

The course material is organized into four themes: Encryption, Computer, Network, Social. Each theme consists of multiple modules. One module will be covered each lecture and one exam will be administered for each theme.

Course content will be delivered primarily through lectures, and augmented with assigned reading and videos intended for consumption prior to class. Anki flashcards and preparatory quizzes for each module will be provided to help with retention of terms and concepts. Exams will require students to further identify the terms and concepts in relevant contexts.

Be sure to check the D2L site often. This syllabus and the D2L site for this class will likely change in response to the progress of this class. The policies and schedule in this syllabus are subject to change at my discretion, upon notice in any form to the class. You are responsible for getting any downloads offered for upcoming classes from D2L. Handouts, assignments, slides, due dates, and other information will be posted on D2L.

## **Learning Goals and Course Objectives:**

### ***Ethical Decision Making***

Upon completion of this course the student should be able to:

Identify the ethical issues of various forms and degrees of hacking

Identify the ethical responsibilities of Information Assurance professionals

Identify the different roles of law enforcement, politics, court decisions, corporate influence and consumer attitudes surrounding issues of intellectual property rights

### ***Business Knowledge and Competency***

Upon completion of this course the student should be able to:

Demonstrate a basic knowledge of the vocabulary, processes, environment and practices of the IA function in the context of the business environment.

Recognize interrelationships between the MIS security function and the other core business disciplines.

Recognize and appreciate the global differences and similarities in the application of IA in the differing legal and cultural environments worldwide.

### ***Technological Competence***

Upon completion of this course the student should be able to:

Recognize, discuss and evaluate a variety of core MIS technical skills including (but not limited to): hardware, software and network configurations; basics of application development; end-user involvement and requirements; open vs closed source software; selecting and building computers.

Recognize, discuss and evaluate a variety of core Information Assurance skills including (but not limited to): symmetric and asymmetric encryption; social engineering; steganography; program and o/s security; authentication; network attacks and controls; the administration, risk management and economics of cyber security; legal and ethical issues of information assurance.

**Disabled Students:** According to the ADA, each student with a disability is responsible for notifying the University of his/her disability and requesting accommodations. If you think you have a qualified disability and need classroom accommodations, contact the office of Student Disability Services (SU 315). Please advise the instructor of your disability as soon as possible, to ensure timely implementation of appropriate accommodations. Faculty have an obligation to respond when they receive official notice of a disability from SDS but are under no obligation to provide retroactive accommodations. To receive services, you must submit appropriate documentation and complete an intake process during which the existence of a qualified disability is verified and reasonable accommodations are identified. Call 744-7116 v/t for more information.

**Attendance:** Attendance is at your whim, given that this is an online course. I do suggest staying on top of the lectures and prep quizzes as there is a lot of material and playing catch-up might be very difficult. The exams and homework are based on my lectures, my slides, any outside videos or material that I may ask you to read/watch.

**Participation:** Class participation is an integral part of the class. It includes not only your ability to read assigned class materials also your ability to scan the environment and contribute scholarly information that you find. Feel free to email me your thoughts and questions! Also, please stay up on current information security events.

**Academic Conduct:** Oklahoma State University is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will result in your being sanctioned. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript (F!), and being suspended from the University. You have the right to appeal the charge. Contact the Office of Academic Affairs, 101 Whitehurst, 405-744-5627, [academicintegrity.okstate.edu](http://academicintegrity.okstate.edu).

**Class Conduct:** Arrive on time (especially important on test days), be awake, interact, ask questions, and be engaged in the class. Tame your cell phones.

## Graduate Grading:

Exam 1	16%
Exam 2	16%
Exam 3	16%
Exam 4	16%
2MT	16%
Paper	20%

**All four exam scores will be used for determining the course grade.** A course grade of 90% or better will result in a letter grade of A, 80-89% B, 70-79% C, 60-69% D, <60% F. **NOTE!** I reserve the right to uniformly move the class average up at the end of the semester. For example, if the course average is 70%, I will not move it to 68%, but I may move it to 72%. This is not a curving process, as all individual scores would move the same amount.

**Exams:** There will be four exams. The exams will be closed book/notes. They may include a combination of multiple choice, short answer, essay questions, and pictorial representations. Exams will cover all readings, lectures, and all materials presented in class.

Distance students (section 503) will have the following exam windows. You will be able to take your exam at any time during these windows (assuming you set up your proctoring with the distance office).

Exam 1	Feb 10 -11
Exam 2	Mar 9 - 10
Exam 3	Apr 8 - 9
Exam 4	May 4 - 5

***Distance students must contact the distance learning office within the first week of classes to arrange for exam proctoring.***

**2MT:** Two 2MT will be assigned during each course theme. These will primarily consist of a question or two from a graduate reading and presented online as a two minute video. Peer grading will be included and every graduate student will be assigned up to five peer assignment for review. In order to get credit on your own 2MT you must adequately complete all assigned peer reviews. Additional details will be provided on D2L and are considered to be part of this syllabus.

**Paper:** The paper requirement is a 15 page argumentative thesis related to Information Assurance. The thesis statement must be submitted to D2L by February 9th. Current news articles or journal papers must be briefly summarized, referenced and submitted by March 8<sup>th</sup>, with at least two being provided for each stakeholder viewpoint. Full credit for the thesis

statement and the sources will be given for good submissions made on time. Partial credit will be given for good revisions made within two weeks of my feedback.

The paper is due at midnight, CST on April 25<sup>th</sup>. Late papers will have 1% deducted for every hour (or fractional hour) after that deadline. Example: a paper 17 hours and 4 minutes late will have a score of  $(100 - 18 - [\text{any normal graded deductions}])$ .

I strongly suggest using the services of the OSU Writing Center for both the thesis and the main body of the paper if you wish to do well on this project (<http://osuwritingcenter.okstate.edu/>). Telling me that you've never written a thesis statement and paper before is no excuse for poor work.

Additional details for the thesis paper will be provided on D2L and are considered to be part of this syllabus.

**Prep Quizzes:** Each module will have a prep quiz provided on D2L consisting of various types of questions designed to help you with the terms and concepts for that module. You will be able to take each prep quiz as many times as you want and your highest score will be recorded to provide you with progress feedback. Prep quizzes for modules related to each exam can be taken until midnight of the evening prior to the exam. Note that for a module presented on Tuesday with an upcoming Thursday exam there will not be much time for taking the prep quiz so don't delay. Exam questions will not be in the same format as prep quizzes (typically exams will be multiple choice) and they will place the terms and concepts in context. This means that, while the flash cards and prep quizzes are designed to help you with the memorization part, the exams will still require you to demonstrate contextual knowledge of those terms and concepts.

**Prep quiz scores will not be used in factoring grades for graduate students but will still be available as study aids.**

**Extra Credit:** Extra credit is generally not provided in this class for graduate students.

**Software:** Since you are enrolled in an MSIS class you will have access to our MSDNAA license and our VMWare license. You should receive an email with information about this opportunity. Go to Login, click on the "I forgot my password", and provide your Okey email as your login name. Your password will be mailed to you. Note that this can take a few days to get set up at the start of the semester.

If you'd like to learn how to virtualize Windows on your Mac using this free software let me know and I'll help!

<b>Course Topics (Subject to Change)</b>	
<b>Jan 12</b>	Course Overview
<b>Jan 14</b>	IAM Overview
<b>Jan 19</b>	Basic Encryption
<b>Jan 21</b>	Symmetric Encryption
<b>Jan 26</b>	Asymmetric Encryption and Hashing
<b>Jan 28</b>	PKI and TLS (SSL)
<b>Feb 2</b>	Steganography
<b>Feb 4</b>	Quantum Computing and Encryption
<b>Feb 9</b>	<b>Exam 1</b>
<b>Feb 11</b>	Computer Basics - Software
<b>Feb 16</b>	Computer Basics - Hardware
<b>Feb 18</b>	Program Attacks (CWE/SANS)
<b>Feb 23</b>	Trustworthy Systems
<b>Feb 25</b>	Authentication and Access Control
<b>Mar 1</b>	OS Functions and Hardening
<b>Mar 3</b>	Open Source Software
<b>Mar 8</b>	<b>Exam 2</b>
<b>Mar 10</b>	Network Concepts
<b>Mar 15</b>	<b><i>Spring Break</i></b>
<b>Mar 17</b>	<b><i>Spring Break</i></b>
<b>Mar 22</b>	Network Concepts
<b>Mar 24</b>	Network and Web Attacks
<b>Mar 29</b>	Network and Web Controls
<b>Mar 31</b>	Pen Testing and Audits
<b>Apr 5</b>	Social Engineering
<b>Apr 7</b>	<b>Exam 3</b>
<b>Apr 12</b>	Security Administration and Policy
<b>Apr 14</b>	Security Risk Management (PWC Survey)
<b>Apr 19</b>	Intellectual Property
<b>Apr 21</b>	Legal I - Cybercrime Laws
<b>Apr 26</b>	Legal II - Compliance
<b>Apr 28</b>	Security Theater
<b>May 3</b>	<b>Final Exam (Exam 4)</b>