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# Information Technology and Homeland Security

Spring 2012

## Preliminary draft syllabus

This graduate course primarily examines the political, legal and policy aspects of the use of information technologies by the US Department of Homeland Security (DHS) but also considers non-technological dimensions of information collection, use and management as well as the use of technologies other than computing in the homeland security domain. Topics include: the DHS enterprise architecture; data-mining, information sharing and data-integration; risk assessment and risk management; project management, system development and acquisitions; information technologies used for screening people, goods and conveyances at borders; managing immigration, investigations and forensics; cyber-terrorism, critical infrastructure protection, data security, privacy and civil liberties; international standard setting and information sharing; robotics and potential applications of nanotechnology. The course is primarily focused on information technology use by the US federal government but will also examine state and local governments and other countries as well as international issues such as information sharing and international technical standards.

The course is designed primarily for masters students of public policy and public administration and but it may also be of interest to information science and political science PhD and masters students. There are no prerequisites.

### **Course Learning Objectives:**

By the end of this course, students should be able to:

1. Identify key concepts in public sector information technology and homeland security
2. Engage in discussions with both faculty and fellow students that critically evaluate common readings
3. Ask incisive questions of texts as well as of fellow seminar participants
4. Construct a seminar paper proposal
5. Orally present seminar paper project and preliminary findings
6. Incorporate feedback from fellow seminar participants to improve final written paper

### **Required textbooks:**

Jay D. White, *Managing Information in the Public Sector* (Armonk, NY: M.E. Sharp, 2007)

Richard A. Clarke and Robert K. Knake, *Cyberwar: The Next Threat to National Security and What to do About It* (New York: HarperCollins 2010)

### **Course Requirements:**

**1. Short written assignments:** 1) Comparative perspectives on IT and homeland security essay (1,500-2,000 words); 2) Team produced report (2,500-3,000 words) plus power point presentation; 3) Op-Ed (750 words)

**2. Questions for discussion:** Students should formulate two thoughtful questions about the assigned readings. These questions should be formulated with the audience of the entire class in mind and with the objective of generating discussion. Students must post the questions on the Blackboard discussion board by 9 AM on the day of class and they should paste the questions on a word document that lists by date all of the students' questions (A schedule of class session dates and titles will be posted and can be used for organization). This inventory of questions must be submitted on the last day of class.

**3. Term paper:** Students are expected to write a paper of about 5,000 words. Students should write a policy-oriented paper that describes a policy problem or policy implementation issues, then develops a set of options to address that problem and, finally, argues for one of those options over the others in a form of a recommendation. (PhD students should consult with the instructor about writing papers more appropriate to their programmatic needs). Students are expected to draw on material from the syllabus but students should also incorporate significant additional research on the topic chosen (which would be reflected in a majority of references to material not listed as required reading on the syllabus). All students may select a topic of their own choosing as long as it is within the confines of the course and approved by the instructor. For those students having difficulty selecting a topic, a good approach would be to consider a paper topic that delves into the details of one aspect of one of the session topics. At the very beginning of the course, students should carefully review the entire syllabus and scan readings for possible topics. Students may opt to model their papers on policy-oriented articles that are found in *Homeland Security Affairs* or *The Journal of Homeland Security*. Students may alternatively opt to model their papers on articles in public sector information management journals such as *International Journal of Electronic Government Research*; *Journal of Government Information*; *Journal of E-Government*.

All students are expected to submit a one sentence paper topic by 2/9. Students are expected to submit a full paper proposal comprised of a 100-150 word abstract, outline and bibliography by 3/1. The proposal should be emailed to [rkoslawski@albany.edu](mailto:rkoslawski@albany.edu). If students miss this deadline, a half letter grade will be subtracted from the final grade for the paper. Students will give a presentation (8-10 minutes) of their preliminary findings during the second half of the course at times to be determined. Final seminar papers are due at the end of the semester on a date to be determined. All sources must be in a bibliography at the end of the paper and properly referenced in the text (author, date, page number). Papers without proper references are unacceptable and will not be read. Papers should be emailed to [rkoslawski@albany.edu](mailto:rkoslawski@albany.edu) (An additional hard copy may also be handed in.)

**4. Class participation:** Students are expected to attend all classes, complete all assigned readings in advance of class and be prepared to discuss them. The base line grade for class participation is a D. Routine attendance with minimal participation will earn a C. Regular contributions to class discussion that are appropriate and draw on readings will earn a B. Students who are consistently well-prepared to discuss the assigned readings nearly every class and actively participate in discussions will receive an A for class participation.

**Grading:**

Comparative essay	about 10%
Team project	about 15%
Op-Ed	about 5%
Discussion questions	about 10%
Term paper	about 40%
Class participation	about 20%

**Late assignments will be penalized.**

**Plagiarism and cheating will not be tolerated.**

Students must properly reference **all** sources, including assigned readings, in **all** written assignments. References to all sources must be clearly indicated. Direct quotations must be marked with double quotation marks (e.g. "...") and the source cited. Indirect quotations must have source cited. Sources require citation each time they are referred to.

## **Class Schedule:**

### **Part I: Introduction**

#### **1/19 Course overview**

##### **Required:**

Christopher Bellavita, "Changing Homeland Security: What is Homeland Security?" *Homeland Security Affairs*, Volume IV No. 2: June 2008. <http://www.hsaj.org/?fullarticle=4.2.1>

White, *Managing Information in the Public Sector*, Ch. 1

#### **1/26 Public Sector Information Technology**

##### **Required:**

White, *Managing Information in the Public Sector*, Chs. 2-8

##### **Recommended:**

E-Government Act of 2002, Public Law 107–347 [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107\\_cong\\_public\\_laws&docid=f:publ347.107.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107_cong_public_laws&docid=f:publ347.107.pdf)

### **2/2 The Formation, Development and Future of DHS**

##### **Required:**

*National Strategy for Homeland Security*, Office of Homeland Security, White House, July 2002  
[http://www.dhs.gov/xlibrary/assets/nat\\_strat\\_hls.pdf](http://www.dhs.gov/xlibrary/assets/nat_strat_hls.pdf)

*A Brief Documentary History of the Department of Homeland Security: 2001 – 2008*  
[http://www.dhs.gov/xlibrary/assets/brief\\_documentary\\_history\\_of\\_dhs\\_2001\\_2008.pdf](http://www.dhs.gov/xlibrary/assets/brief_documentary_history_of_dhs_2001_2008.pdf)

DHS, *Quadrennial Homeland Security Review Report*, February 2010  
[http://www.dhs.gov/xlibrary/assets/qhsr\\_report.pdf](http://www.dhs.gov/xlibrary/assets/qhsr_report.pdf)

*Implementing 9/11 Commission Recommendations, Progress Report 2011*, DHS  
<http://www.dhs.gov/files/publications/implementing-9-11-commission-recommendations.shtm>

DHS Office of Inspector General (DHS-OIG), Major Management Challenges Facing the Department of Homeland Security, OIG-12-08, Nov. 10, 2011 [http://www.oig.dhs.gov/assets/Mgmt/OIG\\_12-08\\_Nov11.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_12-08_Nov11.pdf)

Government Accountability Office (GAO), "Department of Homeland Security: Progress Made and Work Remaining in Implementing Homeland Security Missions 10 Years after 9/11"  
GAO-11-881, Sep 7, 2011 <http://www.gao.gov/assets/330/322889.pdf>  
Skim pp. 1-9; read pp. 10-37; skim pp. 38-53.

William L. Painter, "Issues in Homeland Security Policy for the 112th Congress," Congressional Research Service Report, September 22, 2011 <https://www.hsdl.org/?view&did=689502>

Mueller, John and Mark G. Stewart. "Balancing the Risks, Benefits, and Costs of Homeland Security." *Homeland Security Affairs* 7, Article 16 (August 2011) <http://www.hsaj.org/?article=7.1.16>

\*Stephen Flynn, "Recalibrating Homeland Security: Mobilizing Society to Prepare for Disaster," *Foreign Affairs*, May/June 2011.

Review Department of Homeland Security website <http://www.dhs.gov/index.shtm> Especially:  
DHS Office of Policy [http://www.dhs.gov/xabout/structure/editorial\\_0871.shtm](http://www.dhs.gov/xabout/structure/editorial_0871.shtm)

### **Recommended:**

The Homeland Security Act of 2002, Public Law 107–296  
[http://www.dhs.gov/xlibrary/assets/hr\\_5005\\_enr.pdf](http://www.dhs.gov/xlibrary/assets/hr_5005_enr.pdf)

*The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States* (New York: W.W. Norton 2004). Also available as pdf at: <http://www.911commission.gov>  
MPA students concentrating in Homeland Security should read the entire report. Others might want to skim beginning and then read Ch. 11 (339-359), Section 12.4 (pp. 383-398), Ch 13 (399-428).

## **Part II: DHS Administrative Systems and Information Management**

### **2/9 DHS Enterprise Architecture**

#### **Required:**

Review Department of Homeland Security website <http://www.dhs.gov/index.shtm> Especially:  
Organizational Chart [http://www.dhs.gov/xabout/structure/editorial\\_0644.shtm](http://www.dhs.gov/xabout/structure/editorial_0644.shtm)  
Office of the Secretary <http://www.dhs.gov/xabout/structure/office-of-the-secretary.shtm>  
Department Components <http://www.dhs.gov/xabout/structure/department-components.shtm>

White, *Managing Information in the Public Sector*, Ch. 12

Jeffrey W. Seifert, Federal Enterprise Architecture and E-Government: Issues for Information Technology Management, Congressional Research Service Report, April 10, 2008  
<http://www.hsdl.org/?view&did=485681>

President of the United States, Office of Management and Budget (OMB), "Management of Federal Information Resources," Circular No. A-130 Revised  
[http://www.whitehouse.gov/omb/circulars\\_a130\\_a130trans4](http://www.whitehouse.gov/omb/circulars_a130_a130trans4)

DHS About the Directorate for Management [http://www.dhs.gov/xabout/structure/editorial\\_0096.shtm](http://www.dhs.gov/xabout/structure/editorial_0096.shtm)

Jeffery W. Seifert, "Information Technology (IT) Management: The Clinger-Cohen Act and the Homeland Security Act of 2002," Congressional Research Service Report, February 3, 2005  
<https://www.hsdl.org/?view&did=451569>

Enterprise Data Management Policy, DHS Directives System Directive 103-01, June 3, 2008  
[http://www.dhs.gov/xlibrary/assets/foia/mgmt\\_directive\\_103\\_01\\_enterprise\\_data\\_management\\_policy.pdf](http://www.dhs.gov/xlibrary/assets/foia/mgmt_directive_103_01_enterprise_data_management_policy.pdf)

DHS-OIG, "DHS Continues to Face Challenges in the Implementation of Its OneNet Project," OIG-11-116, Sept. 28, 2011 [http://www.oig.dhs.gov/assets/Mgmt/OIG\\_11-116\\_Sep11.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_11-116_Sep11.pdf)

DHS-OIG, "Management of DHS' Data Center Consolidation Initiative Needs Improvement," OIG-10-120, Sept. 9, 27, 2010 [http://www.oig.dhs.gov/assets/Mgmt/OIG\\_10-120\\_Sep10.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_10-120_Sep10.pdf)

"Department of Homeland Security Transformation and Implementation" (pp. 152-160) in *Department of Homeland Security: Progress Made and Work Remaining in Implementing Homeland Security Missions 10 Years after 9/11* GAO-11-881, Sep 7, 2011 <http://www.gao.gov/assets/330/322889.pdf>

DHS-OIG, "Information Technology Management Letter for the FY 2010 DHS Financial Statement Audit (Redacted)," OIG-11-103 August 2011 (read pp1.-6, skim appendices)  
[http://www.oig.dhs.gov/assets/Mgmt/OIGr\\_11-103\\_Aug11.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIGr_11-103_Aug11.pdf)

Testimony of Deputy Chief Financial Officer Peggy Sherry and Chief Information Security Officer Robert West before the Subcommittee on Government Organization, Efficiency and Financial Management; of the House Oversight and Government Reform Committee, October 27, 2011  
<http://www.dhs.gov/ynews/testimony/20111027-sherry-west-house-oversight.shtm>

#### **Recommended:**

DHS-OIG, Information Technology Management Letter for the FY 2009 DHS Integrated Audit (Redacted) OIG-10-110, August 17, 2010 [http://www.oig.dhs.gov/assets/Mgmt/OIGr\\_10-110\\_Aug10.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIGr_10-110_Aug10.pdf) (of particular interest to MSIS students and those interested in accounting information systems)

## **2/16 Information Sharing, Data-Mining and Risk Management**

#### **Required:**

*Department of Homeland Security Information Sharing Strategy*, April 18, 2008  
[http://www.dhs.gov/xlibrary/assets/dhs\\_information\\_sharing\\_strategy.pdf](http://www.dhs.gov/xlibrary/assets/dhs_information_sharing_strategy.pdf)

Review DHS Information Sharing initiatives and programs discussed at <http://www.dhs.gov/files/programs/sharing-information.shtm>. Please pay particular attention to: the [Automated Critical Asset Management System \(ACAMS\)](#); the [CIKR Asset Protection Technical Assistance Program \(CAPTAP\)](#); the [Homeland Security Information Network](#); the [Protected Critical Infrastructure Information \(PCII\) Program](#); and the [State and Major Urban Area Fusion Centers](#)

Jeffrey W. Seifert, "Data Mining and Homeland Security: An Overview," Congressional Research Service Report, August 27, 2008 <http://www.hsdl.org/?view&did=235472>

DHS-OIG, Survey of DHS Data Mining Activities, OIG-06-56, August 15, 2006  
[http://www.oig.dhs.gov/assets/Mgmt/OIG\\_06-56\\_Aug06.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_06-56_Aug06.pdf)

\*Jeffrey W. Seifert, Sharing and Safeguarding Government Information: Evolving Postures and Rising Challenges,” in Dave Bogart, ed., *Library and Book Trade Almanac* (Medford, NJ: Information Today, Inc, 2011)

Charles Perrow, “The Disaster after 9/11: The Department of Homeland Security and the Intelligence Reorganization.” *Homeland Security Affairs* II, no. 1 (April 2006) <http://www.hsaj.org/?article=2.1.3>

“Information Sharing,” (pp.175-180), “Partnerships and Coordination” (pp. 181-185) of *Department of Homeland Security: Progress Made and Work Remaining in Implementing Homeland Security Missions 10 Years after 9/11* GAO-11-881, Sep 7, 2011 <http://www.gao.gov/assets/330/322889.pdf>

K. Wang, Krasnow, Waterman and Samuel. “Prototyping Fusion Center Information Sharing: Implementing Policy Reasoning Over Cross-Jurisdictional Data Transactions Occurring in a Decentralized Environment.” *Homeland Security Affairs*, Supplement no. 3 (2011) <http://www.hsaj.org/?special:article=supplement.3.6>

Richard A. Best Jr., “Intelligence Information: Need-to-Know vs. Need-to-Share, Congressional Research Service Report, June 6, 2011 <http://www.hsdl.org/?view&did=4345>

About the Office of Risk Management and Analysis  
[http://www.dhs.gov/xabout/structure/gc\\_1185203978952.shtm](http://www.dhs.gov/xabout/structure/gc_1185203978952.shtm)

Office of Risk Management and Analysis Mission  
[http://www.dhs.gov/xabout/structure/gc\\_1287674114373.shtm](http://www.dhs.gov/xabout/structure/gc_1287674114373.shtm)

## **2/23 Project Management, System Development and Acquisition**

**(comparative perspective essay due)**

### **Required:**

White, *Managing Information in the Public Sector*, Ch. 10

DHS Information Technology Acquisitions (Review and read documents of interest)  
[http://www.dhs.gov/xopnbiz/opportunities/editorial\\_0700.shtm](http://www.dhs.gov/xopnbiz/opportunities/editorial_0700.shtm)

Testimony of the Honorable Rafal Borras, Under Secretary for Management, U.S. Department of Homeland Security, before the House Committee on Homeland Security, Subcommittee on Investigations, Oversight, and Management, "Homeland Security Contracting: Does DHS Effectively Leverage Emerging Technologies?" July 15, 2011  
<http://www.dhs.gov/ynews/testimony/20110715-boras-emerging-technologies.shtm>

DHS-OIG, Acquisition Workforce Training and Qualifications, OIG-08-56, May 12, 2008.  
[http://www.oig.dhs.gov/assets/Mgmt/OIG\\_08-56\\_May08.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_08-56_May08.pdf)

GAO, “Information Technology: Critical Factors Underlying Successful Major Acquisitions,” GAO-12-7, Oct 21, 2011 <http://www.gao.gov/assets/590/585842.pdf>

GAO, “Information Technology: DHS Needs to Improve Its Independent Acquisition Reviews,” GAO-11-581, Jul 28, 2011 <http://www.gao.gov/assets/330/322032.pdf>

GAO. *Secure Border Initiative: DHS Needs to Strengthen Management and Oversight of Its Prime Contractor*. GAO-11-6. October 18, 2010. <http://www.gao.gov/assets/320/311431.pdf>

## **Recommended:**

The Support Anti-terrorism by Fostering Effective Technologies Act of 2002 (SAFETY Act)  
[http://www.dhs.gov/xabout/laws/editorial\\_0878.shtm](http://www.dhs.gov/xabout/laws/editorial_0878.shtm)

DHS-OIG "DHS Oversight of Component Acquisition Programs," OIG-11-71, April 11, 2011  
[http://www.oig.dhs.gov/assets/Mgmt/OIG\\_11-71\\_Apr11.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_11-71_Apr11.pdf)

GAO. *Homeland Security: Despite Progress, DHS Continues to Be Challenged in Managing Its Multi-Billion Dollar Annual Investment in Large-Scale Information Technology Systems*. GAO-09-1002T. September 15, 2009. <http://www.gao.gov/assets/130/123290.pdf>

## **Part III: Border Security, Customs and Immigration**

### **3/1 Controlling Borders and Screening People, Goods and Conveyances**

#### **Required:**

Review Customs and Border Protection website: <http://www.cbp.gov/>

\*Alan D. Bersin, "Lines and Flows: The Beginning and End of Borders," Brooklyn Law School, Oct. 11, 2011.

Rey Koslowski, "The Evolution of Border Controls as a Mechanism to Prevent Illegal Immigration," Migration Policy Institute and European University Institute, February 2011.  
<http://www.migrationpolicy.org/pubs/bordercontrols-koslowski.pdf> (read pp. 1-14)

HSPD-6 *Integration and Use of Screening Information to Protect against Terrorism* Sept 16, 2003  
[http://www.dhs.gov/xabout/laws/gc\\_1214594853475.shtm#1](http://www.dhs.gov/xabout/laws/gc_1214594853475.shtm#1)

Testimony of David Heyman, Assistant Secretary for Policy, before the Senate Committee on Homeland Security and Governmental Affairs, "Ten Years after 9/11: Preventing Terrorist Travel" July 13, 2011  
<http://www.dhs.gov/ynews/testimony/20110713-heyman-preventing-terrorist-travel.shtm>

"Automated Targeting Systems" (pp. 6-14), in *DHS 2010 Data Mining Report to Congress*  
<http://www.dhs.gov/xlibrary/assets/privacy/2010-dhs-data-mining-report.pdf>

CSI: Container Security Initiative [http://www.cbp.gov/xp/cgov/trade/cargo\\_security/csi/](http://www.cbp.gov/xp/cgov/trade/cargo_security/csi/)

CSI In Brief [http://www.cbp.gov/xp/cgov/trade/cargo\\_security/csi/csi\\_in\\_brief.xml](http://www.cbp.gov/xp/cgov/trade/cargo_security/csi/csi_in_brief.xml)

ACE: Modernization Information Systems <http://www.cbp.gov/xp/cgov/trade/automated/modernization/>

ACE At a Glance Fact Sheet  
[http://www.cbp.gov/xp/cgov/newsroom/fact\\_sheets/trade/ace\\_factsheets/ace\\_glance\\_sheet.xml](http://www.cbp.gov/xp/cgov/newsroom/fact_sheets/trade/ace_factsheets/ace_glance_sheet.xml)

DHS-OIG "ACE Release 4 Post-Deployment Problems," OIG-07-54, June 22, 2007  
[http://www.oig.dhs.gov/assets/Mgmt/OIG\\_07-54\\_Jun07.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_07-54_Jun07.pdf)

DHS-OIG, "Targeting of Cargo Carriers FY 2008: Review of CBP Cargo Enforcement Reporting and Tracking System," OIG-08-65, June 11, 2008 [http://www.oig.dhs.gov/assets/Mgmt/OIG\\_08-65\\_Jun08.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_08-65_Jun08.pdf)

“Aviation Security” (pp. 55-65), “Border Security,” (91-102), “Maritime Security” (103-115) of *Department of Homeland Security: Progress Made and Work Remaining in Implementing Homeland Security Missions 10 Years after 9/11* GAO-11-881, Sep 7, 2011 <http://www.gao.gov/assets/330/322889.pdf>

GAO, *Arizona Border Surveillance Technology: More Information on Plans and Costs Is Needed before Proceeding*, GAO-12-22, Nov 4, 2011 <http://www.gao.gov/new.items/d1222.pdf>

#### **Recommended:**

HSPD-11, *Comprehensive Terrorist-Related Screening Procedures*, August 27, 2004.  
[http://www.dhs.gov/xabout/laws/gc\\_1217614237097.shtm#1](http://www.dhs.gov/xabout/laws/gc_1217614237097.shtm#1)

Chad C. Haddal, Yule Kim, Michael John Garcia, “Border Security: Barriers Along the U.S. International Border” Congressional Research Service Report, March 16, 2009  
<http://www.fas.org/sqp/crs/homsec/RL33659.pdf>

GAO. *Border Security: Preliminary Observations on the Status of Key Southwest Border Technology Programs*. GAO-11-448T. March 15, 2011. <http://www.gao.gov/new.items/d11448t.pdf>

### **3/8 Biometrics, Document Fraud and Immigration Law Enforcement**

#### **Required:**

“[Biometrics Overview](#),” “[Fingerprint Recognition](#),” “[Iris Recognition](#),” “[Face Recognition](#),” “[Biometrics Standards](#)” in National Science & Technology Council (NSTC) Subcommittee on Biometrics and Identity Management, *Introduction to Biometrics* at: <http://www.biometrics.gov/ReferenceRoom/Introduction.aspx>  
“Biometrics for Identification and Screening to Enhance National Security,” National Security Presidential Directive (NSPD)-59 / Homeland Security Presidential Directive (HSPD) – 24, White House, June 5, 2008  
<http://www.biometrics.gov/Documents/NSPD59%20HSPD24.pdf>

Ruth Ellen Wasem, “Immigration Fraud: Policies, Investigations and Issues,” Congressional Research Service, April 3, 2008 <http://www.hsdl.org/?view&did=485683>

US State Department, *Safety and Security of U.S. Borders: Biometrics*  
[http://travel.state.gov/visa/immigrants/info/info\\_1336.html](http://travel.state.gov/visa/immigrants/info/info_1336.html)

Review pages of US-VISIT website: <http://www.dhs.gov/files/programs/usv.shtm>

*Enhancing Security Through Biometric Identification*  
[http://www.dhs.gov/xlibrary/assets/usvisit/usvisit\\_edu\\_biometrics\\_brochure\\_english.pdf](http://www.dhs.gov/xlibrary/assets/usvisit/usvisit_edu_biometrics_brochure_english.pdf)

*US-VISIT: Preventing Fraud* (also watch video)  
[http://www.dhs.gov/files/programs/gc\\_1214424320368.shtm](http://www.dhs.gov/files/programs/gc_1214424320368.shtm)

*Biometric Standards Requirements for US-VISIT*, Version 1.0, March 15, 2010 (Skim)  
[http://www.dhs.gov/xlibrary/assets/usvisit/usvisit\\_biometric\\_standards.pdf](http://www.dhs.gov/xlibrary/assets/usvisit/usvisit_biometric_standards.pdf)

Government Agencies Using US-VISIT [http://www.dhs.gov/files/programs/gc\\_1214422497220.shtm](http://www.dhs.gov/files/programs/gc_1214422497220.shtm)

Koslowski, “The Evolution of Border Controls as a Mechanism to Prevent Illegal Immigration”  
<http://www.migrationpolicy.org/pubs/bordercontrols-koslowski.pdf> (read pp. 14-23)

US State Dept., *The U.S. Electronic Passport Frequently Asked Questions*  
[http://travel.state.gov/passport/passport\\_2788.html](http://travel.state.gov/passport/passport_2788.html)



Christopher Bronk, "Innovation by Policy: A Study of the Electronic Passport," Baker Institute for Public Policy, May 2007. <http://www-local.bakerinstitute.org/publications/Electronic%20Passport.pdf>

**Recommended:**

GAO. *Homeland Security: US-VISIT Pilot Evaluations Offer Limited Understanding of Air Exit Options*. GAO-10-860. Washington, D.C.: August 10, 2010.

GAO. *Homeland Security: Key US-VISIT Components at Varying Stages of Completion, but Integrated and Reliable Schedule Needed*. GAO-10-13. Washington, D.C.: November 19, 2009.

GAO. *Homeland Security: Strategic Solution for US-VISIT Program Needs to Be Better Defined, Justified, and Coordinated*. GAO-08-361. Washington, D.C.: February 29, 2008.

### **3/22 Team Project Work**

### **3/27 Managing immigration**

**Required:**

United States Citizenship and Immigration Services (USCIS) <http://www.uscis.gov/portal/site/uscis>  
(Review and read documents of interest)

United States Immigration and Customs Enforcement (ICE) <http://www.ice.gov/> (Review and read documents of interest)

USCIS Electronic Immigration System (USCIS ELIS).  
<http://www.uscis.gov/portal/site/uscis/menuitem.4cd33288949d86522c35d24f526e0aa0/?vgnextoid=2d12596d9b2d1310VgnVCM10000082ca60aRCRD&vgnnextchannel=2d12596d9b2d1310VgnVCM10000082ca60aRCRD> (Review and read documents of interest; watch video)

DHS-OIG, "U.S. Citizenship and Immigration Services' Progress in Transformation" OIG-12-12, Nov. 23, 2011 [http://www.oig.dhs.gov/assets/Mgmt/OIG\\_12-12\\_Nov11.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_12-12_Nov11.pdf)

GAO, "Immigration Benefits: Consistent Adherence to DHS's Acquisition Policy Could Help Improve Transformation Program Outcomes," GAO-12-66, Nov 2011. <http://www.gao.gov/assets/590/586460.pdf>

Alejandro Mayorkas "Citizenship and Immigration Services readies for electronic transformation," Radio interview Dec. 9, 2011 at: <http://www.federalnewsradio.com/?nid=85&sid=2663457>

E-Verify  
<http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243c6a7543f6d1a/?vgnextoid=75bce2e261405110VgnVCM1000004718190aRCRD&vgnnextchannel=75bce2e261405110VgnVCM1000004718190aRCRD>

Testimony of U.S. Citizenship and Immigration Services Associate Director Theresa C. Bertucci Before the House Committee on the Judiciary, Subcommittee on Immigration Policy and Enforcement, "E-Verify: Preserving Jobs for American Workers" February 10, 2011  
[http://www.dhs.gov/ynews/testimony/testimony\\_1297289680937.shtm](http://www.dhs.gov/ynews/testimony/testimony_1297289680937.shtm)

DHS-OIG, "Immigration and Customs Enforcement Information Technology Management Progresses But Challenges Remain," OIG-10-90, May 28, 2010 [http://www.oig.dhs.gov/assets/Mgmt/OIG\\_10-90\\_May10.pdf](http://www.oig.dhs.gov/assets/Mgmt/OIG_10-90_May10.pdf)

"Immigration Enforcement," (116-122), "Immigration Services" (pp. 123-129) of *Department of Homeland Security: Progress Made and Work Remaining in Implementing Homeland Security Missions 10 Years after 9/11* GAO-11-881, Sep 7, 2011 <http://www.gao.gov/assets/330/322889.pdf>

## Part IV Cybersecurity

### 4/5 Information Warfare and Cyberterrorism

(Team project due)

#### Required:

Clarke and Knake, *Cyberwar*, Read chs. 1-5 (1-178)

Dorothy E. Denning, "Barriers to Entry: Are They Lower for Cyber Warfare?" *IO Journal*, April 2009. <http://faculty.nps.edu/dedennin/publications/Denning-BarriersToEntry.pdf>

Denning, D. E., "Terror's Web: How the Internet is Transforming Terrorism," to appear in *Handbook on Internet Crime* (Y. Jewkes and M. Yar, eds.), Willan Publishing, 2009 <http://faculty.nps.edu/dedennin/publications/Denning-TerrorsWeb.pdf>

#### Recommended:

Joel Brenner, *America the Vulnerable: Inside the New Threat Matrix of Digital Espionage, Crime and Warfare* (New York: Penguin, 2011).

### 4/12 Cybersecurity and Critical Information Infrastructure Protection

#### Required:

Clarke and Knake, *Cyberwar*, 6-8 (pp. 179-279)

DHS Cybersecurity webpage <http://www.dhs.gov/files/cybersecurity.shtm> (Review and read documents of interest)

White House Cybersecurity webpage <http://www.whitehouse.gov/cybersecurity> (Review and read documents of interest)

DHS Office of Cybersecurity and Communications [http://www.dhs.gov/xabout/structure/gc\\_1185202475883.shtm](http://www.dhs.gov/xabout/structure/gc_1185202475883.shtm)

DHS Office of Infrastructure Protection [http://www.dhs.gov/xabout/structure/gc\\_1185203138955.shtm](http://www.dhs.gov/xabout/structure/gc_1185203138955.shtm)

ICE Cyber Crimes Center (C3) <http://www.ice.gov/cyber-crimes>

*Foreign Spies Stealing US Economic Secrets in Cyberspace: Report to Congress on Foreign Economic Collection and Industrial Espionage, 2009-2011*, Office of the National Counterintelligence Executive, October 2011 [http://www.dni.gov/reports/20111103\\_report\\_fecie.pdf](http://www.dni.gov/reports/20111103_report_fecie.pdf)

About the National Cybersecurity and Communications Integration Center (NCCIC) [http://www.dhs.gov/xabout/structure/gc\\_1306334251555.shtm](http://www.dhs.gov/xabout/structure/gc_1306334251555.shtm)

About United States Computer Readiness Team (US-CERT) <http://www.us-cert.gov/aboutus.html>

Testimony of National Cybersecurity and Communications Integration Center Director Sean McGurk, NPPD, before the House Committee on Oversight and Government Reform, Subcommittee on National Security, Homeland Defense and Foreign Operations, "Cybersecurity: Assessing the Immediate Threat to The United States" May 25, 2011 [http://www.dhs.gov/ynews/testimony/testimony\\_1306421842051.shtm](http://www.dhs.gov/ynews/testimony/testimony_1306421842051.shtm)

DHS, *Blueprint for a Secure Cyber Future*, November 2011 <http://www.dhs.gov/xlibrary/assets/nppd/blueprint-for-a-secure-cyber-future.pdf>

White House, *The Comprehensive National Cybersecurity Initiative* <http://www.whitehouse.gov/sites/default/files/cybersecurity.pdf>

"Critical Infrastructure Protection—Cyber Assets" (pp. 130-139) of *Department of Homeland Security: Progress Made and Work Remaining in Implementing Homeland Security Missions 10 Years after 9/11* GAO-11-881, Sep 7, 2011 <http://www.gao.gov/assets/330/322889.pdf>

Kim Zetter, "DHS Fears a Modified Stuxnet Could Attack U.S. Infrastructure," *Wired*, July 26, 2011 <http://www.wired.com/threatlevel/2011/07/dhs-fears-stuxnet-attacks/>

#### **Recommended:**

HSPD-7, *Critical Infrastructure Identification, Prioritization, and Protection*, Dec. 17, 2003. (9 pp.)

"Information Security" (Title III) of *E-Government Act of 2002*, Public Law 107–347 [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107\\_cong\\_public\\_laws&docid=f:publ347.107.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107_cong_public_laws&docid=f:publ347.107.pdf)

*National Strategy to Secure Cyberspace*, White House, February 2003 [http://www.us-cert.gov/reading\\_room/cyberspace\\_strategy.pdf](http://www.us-cert.gov/reading_room/cyberspace_strategy.pdf)

Brian A. Jackson, "Technology Strategies for Homeland Security: Adaptation and Coevolution of Offense and Defense." *Homeland Security Affairs* V, no. 1 (January 2009) <http://www.hsaj.org/?article=5.1.4>

## **4/19 Data Protection, Privacy and Civil Liberties**

#### **Required:**

White, *Managing Information in the Public Sector*, pp. 167-176, Ch. 11

DHS Privacy Office [http://www.dhs.gov/xabout/structure/editorial\\_0338.shtm](http://www.dhs.gov/xabout/structure/editorial_0338.shtm) (Review and read documents of interest)

DHS Office for Civil Rights and Civil Liberties [http://www.dhs.gov/xabout/structure/editorial\\_0371.shtm](http://www.dhs.gov/xabout/structure/editorial_0371.shtm) (Review and read documents of interest)

Roger Clarke, *Privacy Impact Assessment: Its Origins and Development*, Computer Law & Security Review 25, 2 (April 2009) 123-135 <http://www.rogerclarke.com/DV/PIAHist-08.html>

*DHS Open Government Plan* June 10, 2010 -Version 1.1  
[http://www.dhs.gov/xlibrary/assets/dhs\\_open\\_government\\_plan.pdf](http://www.dhs.gov/xlibrary/assets/dhs_open_government_plan.pdf)

Privacy Impact Assessment for the Homeland Security Information Network (HSIN) Communities of Interest (COIs), Operations Directorate, National Operations Center, June 22, 2007  
[http://www.dhs.gov/xlibrary/assets/privacy/privacy\\_pia\\_ops\\_hsin.pdf](http://www.dhs.gov/xlibrary/assets/privacy/privacy_pia_ops_hsin.pdf)

GAO, *Data Mining: DHS Needs to Improve Executive Oversight of Systems Supporting Counterterrorism* GAO-11-742, September 2011 <http://www.gao.gov/new.items/d11742.pdf>

"Department of Homeland Security Chief Privacy Office and Privacy" Electronic Privacy Information Center (EPIC) <http://epic.org/privacy/dhs-cpo.html>

"PASS ID Act is REAL ID 2.0," Electronic Privacy Information Center (EPIC)  
[http://epic.org/privacy/pass\\_id/](http://epic.org/privacy/pass_id/)

"EU Data Protection Directive," (read: "Introduction" and "background"), Electronic Privacy Information Center (EPIC) [http://epic.org/privacy/intl/eu\\_data\\_protection\\_directive.html](http://epic.org/privacy/intl/eu_data_protection_directive.html)

Ioannis Vakalis, "Privacy and Biometric Passports," Special Issue: Biometrics Applications: Technology, Ethics, and Health Hazards *TheScientificWorldJOURNAL* (2011) 11, 478–489  
<http://downloads.tswj.com/2011/403876.pdf>

## **V. Looking forward:**

### **4/26 International Cooperation: Standard Setting and International Information Sharing**

#### **(Op-Ed due)**

##### **Required:**

Secretary Janet Napolitano, "Our Shared Responsibility: The Importance of Strong International Homeland Security Partnerships," Institut des Hautes Études de Défense Nationale, Paris, France, December 2, 2011 <http://www.dhs.gov/ynews/speeches/20111202-napolitano-remarks-paris-international-partnerships.shtm>

DHS Fact Sheet: DHS's International Footprint <http://www.dhs.gov/ynews/fact-sheets/20111202-dhs-international-footprint.shtm>

DHS Fact Sheet: DHS's International Engagement <http://www.dhs.gov/ynews/fact-sheets/20111202-dhs-international-engagement.shtm>

Kristin Archick, U.S.-EU Cooperation Against Terrorism, Congressional Research Service, May 2, 2011  
<http://www.au.af.mil/au/awc/awcgate/crs/rs22030.pdf>

GAO, "Visa Waiver Program: DHS Has Implemented the Electronic System for Travel Authorization, but Further Steps Needed to Address Potential Program Risks," GAO-11-335, May 17, 2011  
<http://www.gao.gov/assets/320/318077.pdf>

Testimony Of Assistant Secretary David Heyman, Office Of Policy Before The House Committee On The Judiciary, Subcommittee On Immigration Policy And Enforcement: "The United States Visa Waiver Program" December 7, 2011 <http://www.dhs.gov/ynews/testimony/20111207-heyman-policy-visa-waiver-program.shtm>

"EU Data Protection Directive," (read "US-EU Transatlantic Agreement"), Electronic Privacy Information Center (EPIC) [http://epic.org/privacy/intl/eu\\_data\\_protection\\_directive.html](http://epic.org/privacy/intl/eu_data_protection_directive.html)

*Beyond the Border: A Shared Vision for Perimeter Security and Economic Competitiveness*. Action Plan Dec 7, 2011 (especially Parts I, II, and IV) at: <http://www.dhs.gov/files/publications/beyond-the-border-action-plan.shtm>

#### **Recommended:**

European Commission, "Report on the joint review of the implementation of the Agreement between the European Union and the United States of America on the processing and transfer of Passenger Name Record (PNR) data by air carriers to the United States Department of Homeland Security (DHS), 8-9 February 2010 [http://www.dhs.gov/xlibrary/assets/privacy/privacy\\_eu\\_pnr\\_aircarriers\\_feb\\_2010.pdf](http://www.dhs.gov/xlibrary/assets/privacy/privacy_eu_pnr_aircarriers_feb_2010.pdf)

DHS, "Department Response to the European Commission's Report on the Joint Review of the U.S.-E.U. Passenger Name Record Agreement," March 31, 2010  
[http://www.dhs.gov/xlibrary/assets/privacy/privacy\\_dhs\\_response\\_european\\_commission\\_report\\_2010-03-31.pdf](http://www.dhs.gov/xlibrary/assets/privacy/privacy_dhs_response_european_commission_report_2010-03-31.pdf)

DHS Office of International Affairs [http://www.dhs.gov/xabout/structure/editorial\\_0874.shtm](http://www.dhs.gov/xabout/structure/editorial_0874.shtm)

DHS International Agreements <http://www.dhs.gov/xabout/international>

### **5/3 Cutting edge: Robotics, Nanotechnology, etc.**

#### **Required:**

About the Science and Technology Directorate [http://www.dhs.gov/xabout/structure/editorial\\_0530.shtm](http://www.dhs.gov/xabout/structure/editorial_0530.shtm)

Science & Technology Directorate Mission, Goals, and Objectives <http://www.dhs.gov/xabout/structure/st-mission.shtm>

Testimony of Honorable Tara O'Toole, M.D., MPH Under Secretary for Science and Technology, U.S. Department of Homeland Security, before the Committee on Homeland Security Subcommittee on Cybersecurity, Infrastructure Protection, and Security Technologies, November 17, 2011  
<http://www.dhs.gov/ynews/testimony/20111117-otoole-scitech-budget.shtm>

"Developing and Deploying New Technologies for Homeland Security," (pp. 186-191) of *Department of Homeland Security: Progress Made and Work Remaining in Implementing Homeland Security Missions 10 Years after 9/11* GAO-11-881, Sep 7, 2011 <http://www.gao.gov/assets/330/322889.pdf>

Chad C. Haddal and Jeremiah Gertler. "Homeland Security : Unmanned Aerial Vehicles and Border Surveillance." *CRS Report for Congress*. Washington, DC: Congressional Research Service, 2010. <https://www.hsdl.org/?view&did=21432>

Brian Bennett, "Homeland Security adding 3 drone aircraft despite lack of pilots: The unmanned Predators will be added to a force used chiefly to patrol the border with Mexico after lobbying by members of the 'drone caucus.'" Los Angeles Times, Oct. 27, 2011. <http://articles.latimes.com/2011/oct/27/nation/la-na-us-drone-20111027>

"CBP Receives Fourth Predator-B in Arizona" DHS press release December 27, 2011. [http://www.cbp.gov/xp/cgov/newsroom/news\\_releases/national/12272011.xml](http://www.cbp.gov/xp/cgov/newsroom/news_releases/national/12272011.xml)

Testimony of Mark S. Borkowski, Assistant Commissioner, Office of Technology Innovation and Acquisition, U.S. Customs and Border Protection, and Paul Benda, Chief of Staff and Director Homeland Security Advanced Research Projects Agency, Science & Technology Directorate, and Michael Tangora Deputy Assistant Commandant for Acquisition, U.S. Coast Guard, before the House Committee on Homeland Security Subcommittee on Border and Maritime Security, November 15, 2011 <http://www.dhs.gov/ynews/testimony/20111115-borkowski-benda-tangora-house-maritime-security.shtm>

"AVATAR Kiosk Designed to Help Law Enforcement at Borders," UANews, February 16, 2011 <http://uanews.org/node/37610>

"Avatar Knows If You Are Lying," ABC News, March 3, 2011 <http://abcnews.go.com/Technology/high-tech-lie-detector-avatar-helps-border-guards/story?id=13032245>

#### **Recommended:**

Bahri Yildiz, *Exploration of the Use of Unmanned Aerial Vehicles Along with Other Assets to Enhance Border Protection*. Thesis, Naval Postgraduate School, Monterey, CA, 2009. [http://edocs.nps.edu/npspubs/scholarly/theses/2009/Jun/09Jun\\_Yildiz.pdf](http://edocs.nps.edu/npspubs/scholarly/theses/2009/Jun/09Jun_Yildiz.pdf)