**PRIVACY, TECHNOLOGY, POLICY, AND LAW**

**COLLEGE OF COMPUTING & SCHELLER COLLEGE OF BUSINESS**

**GEORGIA INSTITUTE OF TECHNOLOGY**

**Fall 2014**

For proposed undergraduate course in MGT and CS.

Overview of the Course

Course Purpose

There is a great need for qualified privacy professionals in industry and government. One need look no further than the number of data breaches facing industry and government institutions. The privacy field is maturing as evidenced by the fact that thousands of privacy professionals have been certified by the **International Association of Privacy Professionals**. This certification requires an understanding of technology, law and policy; this course exposes students to the complex interplay of these areas. This course will guide students in acquiring the skills needed to effectively design privacy into software while integrating with business practices across an enterprise in various contexts. There is a great need for students to have a course that enables them to acquire the practical hands-on skills needed to be a successful privacy professional while also acquiring the basic grounding needed for more advanced research in areas such as software engineering. This course is expected to increase the practical and research skills of students specializing in business, computing, international affairs, and public policy.

Course Description

This mixed undergraduate- and graduate-level course takes a multi-disciplinary approach to the study of privacy––a current topic of great international interest in for those in technology, policy, law, and/or business. The course is primarily lecture-based, with Socratic discussion of assigned readings, as well as active student participation via lively discussions and debates. Class sessions often include small-group, in-class activities to ensure hands-on experience in applying the concepts presented during lectures. There are no pre-requisites for this course, and students from varied backgrounds are welcome in the course.

Course topics include privacy engineering, big data, analytics, privacy policies, regulatory compliance, social networks, Internet of Things, behavioral advertising, ubiquitous computing, augmented reality, surveillance, wiretapping, and encryption. The course features a semester-long group project that engages students in real-world privacy challenges; specifically, compliance with new privacy regulations, assessment of privacy and security policies, and development of new privacy-sensitive approaches and/or tools for Internet technologies. The professors draw on their extensive experience in business, government, technology, and law to address current privacy debates.

Objectives

This course will enable students to understand how privacy is defined, protected, and managed in the areas of technology, business, policy, and law. Specific objectives include:

1. Examining the state-of-the-art for research and practice in information privacy, including methods, tools, notations and processes used in information systems;

2. Understanding the legal and policy issues surrounding technologies that operate on sensitive information;

3. Developing the multidisciplinary skills needed to analyze, manage, and resolve the challenges associated with privacy, technology, law, and policy;

4. Gaining a basic grounding for future technical research in privacy via the examination of current research issues and problems; and

5. Gain experience handling real-world privacy challenges through analysis of software and business artifacts using written and oral communication.

Basic Information

Instructors:

Professor Annie I. Antón Professor Peter Swire

School of Interactive Computing Scheller College of Business

Office: TSRB #211B Office: Scheller #4163

Phone: 404.894.8591 Phone: 240.994.4142

Email: [aa16@gatech.edu](mailto:aa16@gatech.edu) Email: [peter.swire@scheller.gatech.edu](mailto:peter.swire@scheller.gatech.edu)

Office Hours: Wednesdays 1:00–3:00 PM Office Hours: Thursday 9:30-11:30AM   
 or by appointment or by appointment

Class Time: Tuesdays 6:05 – 8:55 PM

Location: Scheller College of Business #224

Office Hours: We encourage students to make at least one visit during either   
instructor’s office hours over the course of the semester.

Course Website: All course materials are available via T-Square.

**Class Text:** All required material for this course will be available online through   
T-Square. Currently, no textbook exists for this course, but there will be an extensive amount of required reading in the form of academic papers and other readings related to privacy, security, law, and technology.

**Course Resources:** All reading materials and lectures are available in the <Resources> tab   
on T-Square.

**Prerequisties:** There are no prerequisites, and the multi-disciplinary nature of the material means that students from many backgrounds can benefit from the course.

Course Requirements and Grading

Weekly assignments are posted on the class website. Projects this fall will focus on the Right to Be Forgotten case in the European Union, where Google was ordered in 2014 to re-engineer its search engine to comply with new privacy requirements. We expect to have multi-disciplinary teams (including business and computing) to do projects on how companies such as Google, LinkedIn, CNN, and Microsoft should comply with the new requirements while meeting business and IT goals. Grading based on in class participation, projects and class assignments. No examination.

Reviews

All students are expected to read each paper before it is presented. Each week, each undergraduate is expected to prepare a review as shown in the model below. **Each paper review is due by 6:00 PM the day before it is scheduled to be discussed in class (Mondays at 6:00 PM).** Paper reviews should be submitted via T-Square with the filename "citation\_studentInitials]" where “citation” = SvP for the first assignment this semester (e.g. SvP\_aia.docx). Please do not submit \*.ps, \*.pdf, \*.doc or \*.rtf attachment files).

*Undergraduate students will be allowed to drop the lowest grade among their reviews this semester.*

By the end of the semester, each student's set of reviews will comprise an annotated bibliography for future use in advanced studies. To this end, each review submission should be appear as the following example (adopted from Lucas Layman):

[KED00] Khoumsi, Ahmed, Abdeslam En-Nouaary, Rachida Dssouli, Mehdi Akalay. "A New Method for Testing Real-Time Systems," Proceedings from the Seventh International Conference on real-Time Computing Systems and Applications (RTCSA), pp. 441-449, December 2000.

Keywords: real-time systems, testing

This paper presents a testing framework that includes testing for time fault but succeeds in avoiding the state explosion and inefficiency inherent in previous methods. The main contribution is presentation of a method to produce test sequences that fully exercises the system and operates on continues time, rather than discretized time that generates a tremendous number of test cases representing each minute time slice. Also, the approach removes many unreachable test-cases generated by previous methods, thus resulting in a more manageable test suite. Unfortunately, this is not tested in the real world and is based on a strong assumption. There is a need to study methods that are not based on previous methodologies because a new approach will help avoid assumptions so that the approach will work in the most general case.

Students also are expected to include a list of 3 probing questions that stress the intersection of technology, policy and law for each review.

Projects

There are three project submissions: an essay to be submitted by each student individually and a two-part practical project to be completed in teams Each project must conform to the IEEE Transactions Journal Paper template (available in the Project Resources folder on T-Square.

Project Presentations

During the last weeks of the semester, each student will give an oral presentation in which they describe their final project and what they learned in the course. Length of presentations will depend upon course enrollment.

*Slides for each presentation should be submitted via T-Square with the filename "[presentationSlides\_initials]" by noon on the day before the scheduled presentation.*

**Project Submission #1: Right to Be Forgotten Essay**

For this project submission, you will develop an understanding of the current Right to Be Forgotten (RTBF) debates by explaining two contrasting perspectives on what should be done by the affected organizations. There will be three parts to this essay as follows:

**Part 1:** Choose an organization (government or a company) and explain the view of that organization concerning what should happen for the RTBF. To take two clear examples, the Spanish Data Protection Authority thinks the RTBF should be implemented as it argued to the European Court of Justice, while Google thinks that there should be no such legally required right. Possible considerations include the organization’s strategies with respect to privacy, free speech, technological obstacles, and burdens to business. In Part 1 of your essay, describe what you believe the organization’s position would be as clearly as possible, including the reasons that the organization has that position. Second, you should persuasively explain to a neutral reader why this is the best approach to the RTBF.

**Part 2:** Choose an organization with an opposing view. The goal in this part of your essay is to be as persuasive for the second position as you were for the first position.

**Part 3**: Briefly explain your own view**.**

**All students** are expected to have a bibliography for their essay, with proper citations to additional sources in addition to (and including) the assigned readings for week 3. The bibliography does not count toward the assigned word limits.

**Undergraduate students** will submit an essay that must be at least 1,200 words (and no more than 1,800 words) in length, using the IEEE Transactions Journal Paper template (available in the Project Resources folder on T-Square).

**Project Submission #2: Create a Policy and Legal Framework for RTBF**

This is a team project. During week four of the semester, each student will be assigned to a project team for the remainder of the semester. You will be given an opportunity to provide the instructors with information to guide us in picking balanced, multi-disciplinary teams of either undergraduates or graduate students from various majors. For this project submission, your team will:

(1) Create a policy and legal framework for RTBF for an organization.

(2) Identify and analyze enterprise-wide impacts for the organization before and after RTBF is implemented.

(3) Assess how other stakeholders (e.g. regulators, privacy advocates, free speech advocates) would evaluate a compliance effort for RTBF.

**Project Submission #3: Specify and/or Implement a Technical Solution for RTBF & a Compliance Strategy**

(1) Develop options for how the organization can comply with RTBF.

(2) Specify requirements (and, if possible, develop a prototype) for what implementation/compliance would look like for the organization’s RTBF.

(3) Discuss how the organization can meet those requirements.

(4) Assess impact of compliance on the organization, such as categories of cost, technical changes, public policy impacts, etc.

**Class Participation**

Attendance is required. Students will participate in class discussions. This will be done via an "on call" group assignment established in week 3 of the semester. Students will be assigned to one of four different “on call” groups.

Students must be thoroughly prepared to actively discuss in class on the "on call" days to which they are assigned. Preparation may include formulating and bringing discussion questions and reading supporting material to address weaknesses or concerns raised by the paper. If for any reason, a student is unable to be prepared for class on any given day, they must let the instructor know **before** class begins. *Students are able to take a “pass” during one class session for which they were on call over the course of the semester.*

Evaluation Procedures

Final grades in the course will be determined as follows:

Paper Reviews 15%

Paper Presentations 10%

Class Participation \*\* 15%

RTBF Essay 20%

Policy & Legal Framework 20%

Technical Solution 20%

\*\*Note: class attendance is required.

The grading scale for your final grade will be as follows:

A 90 ≤ Final Grade ≤ 100

B 80 ≤ Final Grade < 90

C 70 ≤ Final Grade < 80

D 60 ≤ Final Grade < 70

F Final Grade < 60

Grading Breakdown

The syllabus lists the papers scheduled over the course of the semester that students must review. The lowest grade among paper reviews will be dropped for undergraduate students. Overall, paper reviews are worth 15% of your final grade.

Class participation is worth 15% of your final grade. Course attendance is necessary, but not sufficient. **Students must be well-prepared during their on-call weeks and actively ask questions in class to earn credit in this area.**

Course Projects

All projects shall be submitted via T-Square. There are three course projects and one project presentation that students must complete. They are due on the following dates and worth the following percentages:

Right to Be Forgotten Essay: 20%, Due 9/10/2014 at 6:00 p.m.

RTBF Policy & Legal Framework: 20%, Due 10/24/2014 at 6:00 p.m.

Implementation and Compliance Framework: 20%, Due 11/21/2014 at 6:00 p.m.

Project Presentation: 10%, Due 12/9/2014.

• *Extensions are available on an individual basis.*

Course Calendar & Content

Week 1: Introduction to Privacy, Technology, Policy, and Law

Week 2: Privacy Tort Law and Introduction to Government Surveillance

Week 3: Defining Privacy and the Right to Be Forgotten

Week 4: Privacy Engineering

Week 5: Anonymity and Re-Identification

Week 6: Regulatory Compliance and GLBA/HIPPA

Week 7: Big Data and Analytics

Week 8: Internet of Things, Sensors, and Augmented Reality

Week 9: Fall Break

Week 10: Social Networks

Week 11: Behavioral Advertising and Tracking Technologies

Week 12: Encryption

Week 13: The Fourth Amendment and Technology

Week 14: Foreign Intelligence, Wiretapping, and Communication

Week 15: President’s Review Group on Intelligence & Communications

***Guest Speaker:*** John DeLong, Director of Compliance, National Security Agency

Week 16: Review

**COURSE EXPECTATIONS & GUIDELINES**

**Late Policy Each paper review is due by 6:00 pm the day before it is scheduled to be discussed in class (Monday evening).** Late reviews will be docked one letter grade for up to one week after the day it is due, and will not be accepted after that. Paper reviews should be submitted via T- Square.

Each project deliverable is due as specified in the calendar and in the syllabus above. Late project deliverables will be docked one letter grade per day of the week. Thus, if a project deliverable is due on Monday, but submitted on Tuesday, the highest grade possible on that deliverable is a B, etc.

**Academic Integrity**

The course will follow all relevant and appropriate Georgia Institute of Technology academic regulations (**http://www.honor.gatech.edu**) including those about academic integrity. All students are expected to maintain traditional standards of academic integrity by giving proper credit for all work. Webster’s defines plagiarizing as “to steal and pass off (the ideas or words of another) as one's own: use (another's production) without crediting the source.” A student shall be guilty of a violation of academic integrity if he or she represents the work of others as his or her own or aids another's misrepresentation. All suspected cases of academic dishonesty will be aggressively pursued according to the Georgia Tech Academic Honor Code. **Any violation associated with a homework, assignment, project, examination or quiz will result in a zero for the assignment and a failing grade for the course.** Such violations will be reported to the Office of Student Integrity (OSI), which may impose penalties beyond those by the instructor(s).

In this course, each student is expected to work independently on the first writing assignment; not working independently on the first assignment will be considered a violation of the GT Academic Honor Code. Submitting any work other than your own, including a sentence without proper quotation marks with citation to the original source, is also a violation of the student honor code.

For any questions involving these or any other Academic Honor Code issues, please consult the professor(s) or www.honor.gatech.edu.” Students are also encouraged to read the ACM Code of Ethics (**http://www.acm.org /constitution/code.html**), particularly sections 1.3, 1.5, 1.6, 2.2

and 2.4.

**Accommodations for Students with Disabilities**

The course process will follow all relevant and appropriate Georgia Institute of Technology academic regulations including those relevant to students with disabilities. Any students requiring additional assistance due to disabilities (e.g., learning disabilities) should contact the professor(s) during the first week of the semester. Students requiring extra time for examinations and quizzes are asked to make arrangements at least three days in advance. You may contact the ADAPTS (**http://www.adapts.gatech.edu**) regarding campus services.

**Discrimination and Harassment**

Georgia Tech does not discriminate against individuals on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, or veteran status in the administration of admissions policies, educational policies, employment policies, or any other Institute-governed programs and activities. This class adheres to those guidelines. Alternative viewpoints are welcome in this classroom. However, statements that are deemed racist, sexist, classist, or otherwise discriminatory toward others in the class will not be tolerated.

No form of harassment or discrimination is allowed in this class. In keeping with the professional nature of this course, only professional behavior is acceptable between the instructor and the students and between students. No harassment of any kind is allowed in class including but not limited to gender, age, ability, religion, sexual orientation, and ethnicity.

**MISCELLANEOUS**

**Legal Disclaimer**

Any and all opinions or statements made by the instructors are for classroom purposes only and are not intended and should not be construed as dispensing legal advice or creating an attorney-client relationship. This disclaimer includes conversations with students during and outside of class. The instructors are not permitted to provide personal legal advice to students. Under no circumstances will an attorney-client relationship exist between the instructor and a student.