

# CIS4360-18B6(11333) - Comp and Info Sec

## Course Logistics

Lecture times: MWF 12:50-13:40, online (some lectures may be presented asynchronously)

URL to join: <https://ufl.zoom.us>

[/j/96235609741?pwd=YkVJZ1hjRlZBT3ZCMFo0NS9aL3ZiQT09](https://ufl.zoom.us/j/96235609741?pwd=YkVJZ1hjRlZBT3ZCMFo0NS9aL3ZiQT09) [\\_\(https://ufl.zoom.us/j/96235609741?pwd=YkVJZ1hjRlZBT3ZCMFo0NS9aL3ZiQT09\)](https://ufl.zoom.us/j/96235609741?pwd=YkVJZ1hjRlZBT3ZCMFo0NS9aL3ZiQT09)

Instructor: Kevin Butler <butler@ufl.edu>

Office Hours: 2-3 PM Monday and by appointment - all virtual

TA: Harsh Aswath <harsh.aswath@ufl.edu>

## Course Description

Computer security is one of the most exciting and challenging areas in all of computer science. Many of the world's largest technology companies have made securing their computer systems one of their largest concerns. While technology has made significant inroads in many areas of society, the challenges of keeping systems and networks secure has broad implications for not just users of technology, but all citizens.

This course provides an introduction to computer security. Students successfully completing this class will be able to evaluate works in academic and commercial security and gain expertise in fundamental topic areas. The course begins with a tutorial of the basic elements of cryptography and continues by supplementing readings in computer security with seminal papers and monographs in a wide range of security areas.

Topics covered include network security, authentication, security protocol design and analysis, security modeling, key management, intrusion detection, DDOS detection and mitigation, biometrics, web security, privacy, anonymity and other emerging topics.

Most of the course readings will come from textbooks and a few seminal papers in the field. Links to these materials will be provided on the course pages. In addition, links to critical reference materials will also be provided. We will draw heavily from the following textbook:

Paul van Oorschot, Computer Security and the Internet: Tools and Jewels, Springer, 2020.

<https://www.springer.com/gp/book/9783030336486> [\\_\(https://www.springer.com/gp/book/9783030336486\)](https://www.springer.com/gp/book/9783030336486)

Note that while the book should be available in the bookstore if you want a hard copy, you can also find a PDF copy of the book on Prof. van Oorschot's website at

<https://people.scs.carleton.ca/~paulv/toolsjewels.html> [\\_ \(https://people.scs.carleton.ca/~paulv/toolsjewels.html\)](https://people.scs.carleton.ca/~paulv/toolsjewels.html). As far as I can tell the content is identical, but please respect the restrictions on use noted on the web page.

A detailed list of lecture by lecture contents, assignments, and due dates (subject to change as the term evolves) will be available on the course schedule, listed below.

Please contact the instructor if you have questions regarding the material or concerns about whether your background is suitable for the course.

If you are not familiar with C or Python and UNIX programming environments, you will need to become so. Having some exposure to reading assembly may be helpful. There are many good free online references for C and Python. For additional resources, the following are recommended for learning and using C:

- Kernighan and Ritchie, *The C Programming Language*. 2/E, Prentice Hall, 1988.
- Harrison and Steele, *C: A Reference Manual*
- A.D. Marshall, [Programming in C](http://www.cs.cf.ac.uk/Dave/C/) [\\_ \(http://www.cs.cf.ac.uk/Dave/C/\)](http://www.cs.cf.ac.uk/Dave/C/)
- <https://www.cprogramming.com/>

The following is a good resource on Python programming:

- Python Programming Fundamentals: <https://pythonprogramming.net/python-fundamental-tutorials/> [\\_ \(https://pythonprogramming.net/python-fundamental-tutorials/\)](https://pythonprogramming.net/python-fundamental-tutorials/)
- <https://www.learnpython.org/>

The following are good resources on UNIX programming:

- Stevens and Rago, *Advanced Programming in the Unix Environment*. 2/E, Addison Wesley, 2005.
- Kerrisk, *The Linux Programming Interface*. 1/E, No Starch Press, 2010.

If you are unfamiliar with using the command line, the following resource is helpful:

- [LinuxCommand.org](http://linuxcommand.org/) [\\_ \(http://linuxcommand.org/\)](http://linuxcommand.org/)

You likely learned some assembly in a computer organization or architecture course. Reading x86 assembly is not tremendously different from MIPS assembly. If you want a short primer, the [x86 Assembly Guide](http://www.cs.virginia.edu/~evans/cs216/guides/x86.html) [\\_ \(http://www.cs.virginia.edu/~evans/cs216/guides/x86.html\)](http://www.cs.virginia.edu/~evans/cs216/guides/x86.html) from the University of Virginia is good. For a canonical reference, [The Art of Assembly Language](http://www.planetpdf.com/codecuts/pdfs/aoa.pdf) [\\_ \(http://www.planetpdf.com/codecuts/pdfs/aoa.pdf\)](http://www.planetpdf.com/codecuts/pdfs/aoa.pdf) is excellent.

## Course Expectations

The expectations for the course are that students will attend every class, do the readings assigned for class, and actively and constructively participate in class discussions. There will be class assignments, occasional quizzes, and examinations.

## Grading

The grading policy is as follows:

- 20% Midterm
- 30% Final Exam
- 50% Assignments

The course will include two midterms and one final exam. Students will be responsible for material covered both in the readings and in the lectures. Attendance is therefore recommended as not all class discussions will be covered in the text.

Grade points are calculated in accordance with UF regulations: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

## Classroom Etiquette, Participation, and Attendance

Beyond my expectation that you will be prepared for class by doing the reading, I expect a respectful environment in the classroom. This means not talking loudly with your peers during a lecture, keeping your cell phones on mute, and not disrupting the class. Such respect goes both ways - you should expect to be respectfully and fairly treated by the instructor and TAs. At any time I would welcome your feedback regarding any concerns you might have in this regard.

Class participation will be a measure of contributing to the discourse both in class, through discussion and questions, inside and outside of class. The goal is for thoughtful contributions that show engagement with the material. The ability to comprehend the material and the papers read will be essential towards passing the course.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

## Student with Disabilities

Students with disabilities requesting accommodations should first register with the Disability

Resource Center (352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

## Academic Integrity Policy and Honor Pledge

Students are required to follow the university guidelines on academic conduct at all times. Students failing to meet these standards will be reported to the Dean of Students, which can result in the student receiving an 'E' grade for the course. The instructor carefully monitors for instances of offenses such as plagiarism and illegal collaboration, so it is very important that students use their best possible judgement in meeting this policy.

Note that students are explicitly forbidden to copy anything off the Internet (e.g., source code, text) for the purposes of completing assignments or the projects without previous discussion with the instructor. Also, students are forbidden from discussing or collaborating on any assignment except where explicitly allowed in writing by the instructor.

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

## Ethics Statement

This course considers topics involving personal and public privacy and security. As part of this investigation we will cover technologies whose abuse may infringe on the rights of others. As security professionals, we rely on the ethical use of these technologies. Unethical use may include circumvention of existing security or privacy measurements for any purpose, or the dissemination, promotion, or exploitation of vulnerabilities of these services. Exceptions to these guidelines *may* occur in the process of reporting vulnerabilities through public and authoritative channels. Any activity outside the letter or spirit of these guidelines will be reported to the proper authorities and may result in dismissal from the class and possible more severe academic and legal sanctions.

When in doubt, please contact Professor Butler for advice. **Do not** undertake any action which

could be perceived as technology misuse anywhere and/or under any circumstances unless you have received explicit permission from Professor Butler.

## Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

## Campus Resources for Student Support

As professors, we are concerned with your welfare and well-being. School can be challenging but the cost shouldn't be your health or your life. If you find yourself struggling, please look at the following resources. You are not alone.

### Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392- 1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department, 392-1111 (or 9-1-1 for emergencies). <http://www.police.ufl.edu/>

### Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu). <https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <http://www.crc.ufl.edu/>

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

# Course Summary:

Date	Details	
Mon Aug 31, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614262&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614262&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614262&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Sep 2, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614263&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec Lecture: Threat models, intro to cryptography</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614263&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614263&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Sep 4, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614264&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec Lecture: Classical Cryptography</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614264&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614264&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Sep 9, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614266&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec Lecture: Secret Key Cryptography</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614266&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614266&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Sep 11, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614267&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec Lecture: Block Ciphers</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614267&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614267&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Mon Sep 14, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614268&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614268&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614268&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Sep 16, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614269&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a>	12:50pm to 1:50pm

Date	Details	
	<a href="https://ufl.instructure.com/calendar?event_id=1614269&amp;include_contexts=course_407610">           (https://ufl.instructure.com/calendar?event_id=1614269&amp;include_contexts=course_407610)         </a>	
Fri Sep 18, 2020	 <b>CIS4360-18B6(11333) - Comp and Info Sec</b> <a href="https://ufl.instructure.com/calendar?event_id=1614270&amp;include_contexts=course_407610">           (https://ufl.instructure.com/calendar?event_id=1614270&amp;include_contexts=course_407610)         </a>	12:50pm to 1:50pm
Mon Sep 21, 2020	 <b>CIS4360-18B6(11333) - Comp and Info Sec</b> <a href="https://ufl.instructure.com/calendar?event_id=1614271&amp;include_contexts=course_407610">           (https://ufl.instructure.com/calendar?event_id=1614271&amp;include_contexts=course_407610)         </a>	12:50pm to 1:50pm
	 <b>Assignment 1</b> <a href="https://ufl.instructure.com/courses/407610/assignments/4424536">           (https://ufl.instructure.com/courses/407610/assignments/4424536)         </a>	due by 11:59pm
Wed Sep 23, 2020	 <b>CIS4360-18B6(11333) - Comp and Info Sec</b> <a href="https://ufl.instructure.com/calendar?event_id=1614272&amp;include_contexts=course_407610">           (https://ufl.instructure.com/calendar?event_id=1614272&amp;include_contexts=course_407610)         </a>	12:50pm to 1:50pm
Fri Sep 25, 2020	 <b>CIS4360-18B6(11333) - Comp and Info Sec</b> <a href="https://ufl.instructure.com/calendar?event_id=1614273&amp;include_contexts=course_407610">           (https://ufl.instructure.com/calendar?event_id=1614273&amp;include_contexts=course_407610)         </a>	12:50pm to 1:50pm
Mon Sep 28, 2020	 <b>CIS4360-18B6(11333) - Comp and Info Sec</b> <a href="https://ufl.instructure.com/calendar?event_id=1614274&amp;include_contexts=course_407610">           (https://ufl.instructure.com/calendar?event_id=1614274&amp;include_contexts=course_407610)         </a>	12:50pm to 1:50pm
Wed Sep 30, 2020	 <b>CIS4360-18B6(11333) - Comp and Info Sec</b> <a href="https://ufl.instructure.com/calendar?event_id=1614275&amp;include_contexts=course_407610">           (https://ufl.instructure.com/calendar?event_id=1614275&amp;include_contexts=course_407610)         </a>	12:50pm to 1:50pm

Date	Details	
Fri Oct 2, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614276&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614276&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614276&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Mon Oct 5, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614277&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614277&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614277&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Oct 7, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614278&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614278&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614278&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Oct 9, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614279&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614279&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614279&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Mon Oct 12, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614280&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614280&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614280&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Oct 14, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614281&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614281&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614281&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Oct 16, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614282&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614282&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614282&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm



Date	Details	
Mon Oct 19, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614283&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614283&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614283&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Oct 21, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614284&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614284&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614284&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Oct 23, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614285&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614285&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614285&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Mon Oct 26, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614286&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614286&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614286&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Oct 28, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614287&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614287&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614287&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Oct 30, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614288&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614288&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614288&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Mon Nov 2, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614289&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614289&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614289&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm


Date	Details	
Wed Nov 4, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614290&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614290&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614290&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Nov 6, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614291&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614291&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614291&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Mon Nov 9, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614292&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614292&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614292&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Nov 11, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614293&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614293&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614293&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Nov 13, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614294&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614294&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614294&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Mon Nov 16, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614295&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614295&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614295&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Nov 18, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614296&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614296&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614296&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm

Date	Details	
Fri Nov 20, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614297&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614297&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614297&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Mon Nov 23, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614298&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614298&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614298&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Nov 25, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614299&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614299&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614299&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Nov 27, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614300&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614300&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614300&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Mon Nov 30, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614301&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614301&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614301&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Dec 2, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614302&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614302&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614302&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Dec 4, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614303&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614303&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614303&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm


Date	Details	
Mon Dec 7, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614304&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614304&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614304&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Wed Dec 9, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614305&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614305&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614305&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
Fri Dec 11, 2020	 <a href="https://ufl.instructure.com/calendar?event_id=1614306&amp;include_contexts=course_407610">CIS4360-18B6(11333) - Comp and Info Sec</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1614306&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1614306&amp;include_contexts=course_407610</a> )	12:50pm to 1:50pm
	 <a href="https://ufl.instructure.com/calendar?event_id=1548257&amp;include_contexts=course_407610">CLASSES CANCELLED</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1548257&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1548257&amp;include_contexts=course_407610</a> )	
	 <a href="https://ufl.instructure.com/calendar?event_id=1548243&amp;include_contexts=course_407610">FINAL EXAM</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1548243&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1548243&amp;include_contexts=course_407610</a> )	
	 <a href="https://ufl.instructure.com/calendar?event_id=1548242&amp;include_contexts=course_407610">Lecture 2: Security Concepts</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1548242&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1548242&amp;include_contexts=course_407610</a> )	
	 <a href="https://ufl.instructure.com/calendar?event_id=1548241&amp;include_contexts=course_407610">Lecture 3: Internetworking</a> ( <a href="https://ufl.instructure.com/calendar?event_id=1548241&amp;include_contexts=course_407610">https://ufl.instructure.com/calendar?event_id=1548241&amp;include_contexts=course_407610</a> )	

**Date****Details**


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 [Lecture 4: Classical Cryptosystems](https://ufl.instructure.com/calendar?event_id=1548227&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548227&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548227&include_contexts=course_407610))


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 [Lecture 5: Secret-Key Cryptography](https://ufl.instructure.com/calendar?event_id=1548247&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548247&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548247&include_contexts=course_407610))


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 [Lecture 6: Block Ciphers](https://ufl.instructure.com/calendar?event_id=1548237&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548237&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548237&include_contexts=course_407610))

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 [Lecture 7: Hash Functions](https://ufl.instructure.com/calendar?event_id=1548232&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548232&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548232&include_contexts=course_407610))


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 [Lecture 8: Public Key Cryptography](https://ufl.instructure.com/calendar?event_id=1548230&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548230&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548230&include_contexts=course_407610))

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 [Lecture 9: RSA and Digital Signatures](https://ufl.instructure.com/calendar?event_id=1548265&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548265&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548265&include_contexts=course_407610))

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 [Lecture1 : Course Introduction](https://ufl.instructure.com/calendar?event_id=1548236&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548236&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548236&include_contexts=course_407610))

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**Date****Details**


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 [Lecture: Authentication](https://ufl.instructure.com/calendar?event_id=1548233&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548233&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548233&include_contexts=course_407610))


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 [Lecture: Blockchains](https://ufl.instructure.com/calendar?event_id=1548252&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548252&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548252&include_contexts=course_407610))

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 [Lecture: Botnets and Ransomware](https://ufl.instructure.com/calendar?event_id=1548248&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548248&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548248&include_contexts=course_407610))

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 [Lecture: End-to-End Encryption and Key Escrow](https://ufl.instructure.com/calendar?event_id=1548226&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548226&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548226&include_contexts=course_407610))

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 [Lecture: Firewalls](https://ufl.instructure.com/calendar?event_id=1548235&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548235&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548235&include_contexts=course_407610))

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 [Lecture: IDS and Firewalls](https://ufl.instructure.com/calendar?event_id=1548254&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548254&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548254&include_contexts=course_407610))


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 [Lecture: IDS and Honeypots](https://ufl.instructure.com/calendar?event_id=1548229&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548229&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548229&include_contexts=course_407610))

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**Date****Details**

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 **[Lecture: Information Flow  
\(CLASS BY VIDEO, NO IN-CLASS  
LECTURE\)](#)**

[https://ufl.instructure.com  
/calendar?event\\_id=1548260&  
include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548260&include_contexts=course_407610)

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 **[Lecture: Kerberos](#)**

[https://ufl.instructure.com  
/calendar?event\\_id=1548244&  
include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548244&include_contexts=course_407610)

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 **[Lecture: Key Agreement](#)**

[https://ufl.instructure.com  
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include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548255&include_contexts=course_407610)

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 **[Lecture: Multics/Exam Review](#)**

[https://ufl.instructure.com  
/calendar?event\\_id=1548240&  
include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548240&include_contexts=course_407610)

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 **[Lecture: Multilevel Security](#)**

[https://ufl.instructure.com  
/calendar?event\\_id=1548261&  
include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548261&include_contexts=course_407610)

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 **[Lecture: Mutual Authentication](#)**

[https://ufl.instructure.com  
/calendar?event\\_id=1548263&  
include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548263&include_contexts=course_407610)

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 **[Lecture: Mutual  
Authentication/Kerberos](#)**

[https://ufl.instructure.com  
/calendar?event\\_id=1548228&  
include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548228&include_contexts=course_407610)

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 **[Lecture: Network Security](#)**

[https://ufl.instructure.com  
/calendar?event\\_id=1548267&  
include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548267&include_contexts=course_407610)

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**Date****Details**

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 [Lecture: Network Vulnerabilities](https://ufl.instructure.com/calendar?event_id=1548249&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548249&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548249&include_contexts=course_407610))


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 [Lecture: PKI](https://ufl.instructure.com/calendar?event_id=1548234&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548234&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548234&include_contexts=course_407610))


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 [Lecture: Security Policy and Access Control](https://ufl.instructure.com/calendar?event_id=1548245&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548245&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548245&include_contexts=course_407610))


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 [Lecture: Software Security](https://ufl.instructure.com/calendar?event_id=1548246&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548246&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548246&include_contexts=course_407610))

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 [Lecture: Software Security](https://ufl.instructure.com/calendar?event_id=1548253&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548253&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548253&include_contexts=course_407610))

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 [Lecture: Software Security \(continued\)](https://ufl.instructure.com/calendar?event_id=1548238&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548238&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548238&include_contexts=course_407610))

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 [Lecture: User Authentication and Passwords](https://ufl.instructure.com/calendar?event_id=1548231&include_contexts=course_407610)  
([https://ufl.instructure.com/calendar?event\\_id=1548231&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548231&include_contexts=course_407610))

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**Date****Details**


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 **Lecture: Web Security**  
([https://ufl.instructure.com/calendar?event\\_id=1548262&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548262&include_contexts=course_407610))

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 **Lecture: Web Security**  
([https://ufl.instructure.com/calendar?event\\_id=1548270&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548270&include_contexts=course_407610))


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 **Lecture: Worms and Viruses**  
([https://ufl.instructure.com/calendar?event\\_id=1548266&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548266&include_contexts=course_407610))


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 **Lecture: Operating System Security** ([https://ufl.instructure.com/calendar?event\\_id=1548251&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548251&include_contexts=course_407610))


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 **Lecture: Passwords**  
([https://ufl.instructure.com/calendar?event\\_id=1548269&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548269&include_contexts=course_407610))

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 **MIDTERM EXAM 1**  
([https://ufl.instructure.com/calendar?event\\_id=1548256&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548256&include_contexts=course_407610))

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 **MIDTERM EXAM 2**  
([https://ufl.instructure.com/calendar?event\\_id=1548239&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548239&include_contexts=course_407610))

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 **NO CLASS: HOMECOMING**  
([https://ufl.instructure.com/calendar?event\\_id=1548225&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548225&include_contexts=course_407610))

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 **NO CLASS: LABOR DAY**  
(<https://ufl.instructure.com>)

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**Date****Details**

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 **[NO CLASS: Review slides posted here](https://ufl.instructure.com/calendar?event_id=1548250&include_contexts=course_407610)**  
([https://ufl.instructure.com/calendar?event\\_id=1548250&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548250&include_contexts=course_407610))


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 **[NO CLASS: THANKSGIVING](https://ufl.instructure.com/calendar?event_id=1548258&include_contexts=course_407610)**  
([https://ufl.instructure.com/calendar?event\\_id=1548258&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548258&include_contexts=course_407610))

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 **[NO CLASS: Thanksgiving](https://ufl.instructure.com/calendar?event_id=1548259&include_contexts=course_407610)**  
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 **[NO CLASS: VETERAN'S DAY](https://ufl.instructure.com/calendar?event_id=1548268&include_contexts=course_407610)**  
([https://ufl.instructure.com/calendar?event\\_id=1548268&include\\_contexts=course\\_407610](https://ufl.instructure.com/calendar?event_id=1548268&include_contexts=course_407610))

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