

Communication Protocols and Internet Architectures
Harvard University
CSCI S-40, Week 1, June 25, 2018
Weekly Course Logistics and Information

Course Information and Logistics

- Welcome to the course! The Teaching Fellows and I look forward to working with you, and learning with you this summer.
- Please review the course syllabus that is posted on the course website.
- The TFs this term are Joe, David and Kevin (all former students in the course).
 Kevin Coyle email: kevin.coyle@securityghost.net
 Joe Pranevich email: jpranevich@gmail.com
 David Weissman email: david@techworth.us
- If you have not already submitted one, please complete the optional student questionnaire. The link for it is <http://tinyurl.com/cs40-survey> (This link is also posted on the home page of the course website.) The information that you provide us about your background and your interests helps us plan the sections and reading assignments.
- **Separate from the student questionnaire, which only the course teaching staff will have access to, please introduce yourself to your classmates via the Discussion Board on the course website.** Posting this introduction is optional, but it is helpful for students to know a bit about each other since you will be meeting each other in section meetings and posting comments on the discussion board. We ask you to do this, if you wish, since the teaching staff is not permitted to post any student information due to privacy considerations.
- This course is part of the Harvard Summer School's Online Education Program. Lectures for this term were recorded when this course was given at Harvard during the Fall term of 2017. These previously recorded lectures will be made available during the Summer term per the schedule on the course syllabus. Please see the Summer School website for information on online courses, technical support, and academic information.
- While the lectures for this course are pre-recorded, all the other aspects of the course are "live" and are comparable to those of other Summer School courses (where lectures are given in a lecture hall at Harvard.) This means that you are responsible for homework, an online midterm exam, and an in-class final exam (or proctored exam if you are a distance student), just as you would be in any other course where you attend weekly lectures.
- It is important that students check the course website throughout the term for relevant dates since all homework and reading assignments on the website will be updated to reflect the fact that this is a summer course. (The recorded lectures might refer to dates from the fall, which is when the lectures were recorded.)
- Given that this summer school course covers the same material as the comparable course given during the academic year, and given the difference between the fall term class schedule (15 weeks) and the summer school schedule (7 weeks), we plan to post three or four lectures each week. You will need to watch these lectures as well as do all of the associated reading in order to learn the material covered in the course. **Based on past experience, you can expect to spend twenty hours or more per week on the course.**
- **Weekly Section Meetings start this week:** Students are required to attend a section meeting each week, either online or on-campus. There is one on-campus section meeting each week,

plus two online section meetings (using the Zoom webconference software.) The on-campus section meeting is on Tuesday evenings and it will be held in room L01 at 53 Church Street starting at 7:30PM. This on-campus meeting will include streaming video and a chat room for students who are not on campus. The online section meetings will be on Thursday evening at 9PM EST and Saturday morning at 10AM EST. Based on our experience, asking questions and discussing the course material during these section meetings will help you understand the material and prepare for the exams. The details about these section meetings are below.

- **Weekly Online Office hours:** We will hold online office hours on Wednesdays between 11AM and noon, or, please contact the instructor if you wish to schedule office hours for another time. We will use the same Zoom webconference tool we use for the online sections for online office hours. See the section below for information on Zoom.
- The lecture videos, the lecture handouts, the weekly course logistics and information sheet (this document) and the reading assignments will be posted on the course website each week.
- **Three lecture videos and an additional lecture on ethernet switching are being posted for the first week of the term.**
- There is one required textbook called Internetworking with TCP/IP Volume One - 6th Edition by Prof. Douglas Comer. It is very important that you use the 6th edition since prior editions are out of date. We will also be reading RFCs, and other technical documents, and we might use some subscription-based online books.
- **Please submit a One-Minute Wrap-Up at the end of each lecture using the online form posted in the weekly module.** This form is anonymous.
- The lecture and section videos will be password protected starting the second week of class.
- Note that we will be reading background and tutorial information made available by vendors and other sources. This is not intended as an endorsement by Harvard or the instructor of any specific vendor, product, service or site.

Weekly Reading Assignments

- As noted above, a separate document with the reading assignment for each lecture will be posted week-by-week. The reading assignments for lectures 1 through 4 have been posted in module 1 on the course website. (Note that lecture 4 will be posted in week 2, but we recommend that you complete the reading assignment before you watch the lecture.)

Homework and Exams

- There will be five homework assignments during the term. The due dates are on the syllabus.
- The first homework is being assigned today and it is due at 1PM (Boston time) next Monday July 2nd. Homework must be submitted using the Submit Homework feature on the course website.
- **Midterm Exam:** The online midterm exam is tentatively scheduled for Thursday July 19th and it will be available via the Quiz tool on the course website. The midterm will be available for download between 12:05 AM and 9:45 PM (Boston time) on that date. The exam is two hours long and it is an open book exam, but you cannot use search engines. Further details will be posted in July.
- **Final Exam:** The Final Exam is a closed-book, three hour exam and it will be held on August 7th. Details will be available next week.

Weekly Section Meetings

- The **on-campus section meetings** are held on Tuesday evenings in room L01 at 53 Church Street starting at 7:30pm. The live video of the section will be available via the Lecture Video link on the navigation bar of the website and we will be using a chat room called Backchannel Chat so that online students can ask questions. The link for our chat room is:
<http://backchannelchat.com/chat/vla21>

Please note that this chat room is not managed by Harvard, does not require a login and is not private. Therefore do not include any personal or private information in your conversations. Also note that you must login to the course website in order to see the links for the video and chat room. The recorded video from this on-campus section will be posted on Wednesday

- The **online section meetings** are held on Thursday evenings at 9PM EST and on Saturday mornings at 10AM EST. We are using an online collaboration tool called Zoom for these online meetings. Zoom is a web conferencing tool used for many different courses here at Harvard, and it is comparable to WebEx or Google Hangouts. The online section meetings will not be recorded.

You can join your online section meeting in a number of different ways. If you are using a laptop or desktop computer then you should use the link below to join the meeting.

<https://harvard-dce.zoom.us/j/5092853098>

If you're using Zoom on a mobile device then you will need to install the Zoom app. Once you have done that you join your meeting by entering ID # 5092853098. Please note that you do not need to sign up for a separate Zoom account to join the online meeting.

Zoom supports Windows and Mac OSX using common browsers, such as Firefox, Chrome and Safari, plus many different tablets and mobile devices. You will need to install and run a Zoom browser plug-in if you are using your computer, or you will need to install the Zoom app if you are using a mobile device. Please make sure to test your audio and video configuration before you use the system for the first time. You can find more specific technical information on system requirement here:

<https://support.zoom.us/hc/en-us/articles/201362023-System-Requirements-for-PC-and-Mac>

You should use a headset with a microphone in order to improve the quality of your audio, and you should always mute your audio if you are not speaking. As you will learn in this class, the network performance of wireless Ethernet (IEEE 802.11 or Wi-Fi) and cellular service is much worse than wired Ethernet and this means that the quality of your video and audio might not be very good if you use a wireless connection. This is especially true if you are using a Wi-Fi connection at a coffee shop. As we will discuss later this term, the most important parameters that are used to measure network performance are packet error rate, network delay, and network jitter.

We look forward to working with you this term!