

## **SYLLABUS: CONSIDERATIONS IN TELECOMMUNICATION**

**COMN 3510 — Fall 2019 — v.1.0 — Sept 4, 2019**

*(may be revised and updated from time to time)*

Instructor: David Ellis, PhD

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Student consultations by appointment

*This syllabus contains the following sections: Course Description, Course Goals, Weekly Outline, Grading Scheme, Course Policies, Style Sheet and University Policies.*

### **COURSE DESCRIPTION**

This course provides an introduction to telecommunications networks and the role they play in our highly connected society. The networks that link our landlines, mobile phones, computers and other devices are expensive to build, difficult to duplicate and in regular use by the great majority of citizens in developed countries. As a result, incumbent network operators like Bell, Vidéotron and Telus hold dominant market positions that allow them to exercise gatekeeping power over customers and competitors. Such power has controversial effects on the quality and pricing of telecomm services like broadband, as well as on aspects of the social contract like the right to privacy. In recent years, however, the dominance of network operators has been challenged by the staggering influence of platform providers like Google and Facebook — a development that is reshaping the nature of telecommunications in North America.

While not a formal prerequisite, this course should provide useful preparation for COMN 3511 and COMN 4520, both of which examine Internet-related technologies and social issues in greater detail.

### **COURSE GOALS**

By taking this course, you will:

- Be amazed at what you accomplish after ditching your phone for 3 hours
- Learn how the networks you live on actually work
- Develop a sense of media history
- Lose your unwarranted fears of “technology”
- Get detailed feedback on your work, especially your writing
- Be well prepared for COMN 3511 and 4520

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## WEEKLY OUTLINE & READING SCHEDULE

**Wed Sept 4 (#1)** — Course goals and structure, grading scheme, student responsibilities.

**Wed Sept 11 (#2)** — Telecommunications is not broadcasting

Readings (R1): DE blog posts (html) — i) *It's 2015: Cancon is the aberration, not VPNs or the Internet* (Jan 14, 2015) -- ii) *Cancon redux: Canada's TV "system" battles the Internet* (Jan 22, 2015) -- iii) *Dialing for digital dollars: inside the Cancon sausage factory* (Dec 1, 2016)

**Wed Sept 18 (#3)** — Telecommunications is a (heavily) regulated industry (1/2)

Reading (R2): CRTC (May 2011), Telecom Regulatory Policy CRTC 2011-291, *Obligation to serve and other matters* (pdf)

**Wed Sept 25 (#4)** — Telecommunications is a (heavily) regulated industry (2/2) — **Quiz #1**

Reading (R3): CRTC (Dec 2016), Telecom Regulatory Policy CRTC 2016-496, *Modern telecommunications services: The path forward for Canada's digital economy* (pdf)

**Wed Oct 2 (#5)** — Telecommunications is the Internet (1/2) — **Report proposal due**

Reading (R4): Severance videos on TCP/IP (2012): Overview (25 min), Link layer (10 min), Internetwork layer (38 min) — *posted on Dropbox*

**Wed Oct 9 (#6)** — Telecommunications is the Internet (2/2) — **Quiz #2**

Reading (R5): Severance videos: Transport (TCP) layer (15 min), Transport (TCP) layer summary (4 min), Security layer (23 min), Application layer (26 min) — *posted on Dropbox*

>> **Wed Oct 16 — Fall Reading Week — No Class** <<

**Wed Oct 23 (#7)** — Telecommunications is (highly) concentrated (1/2) — **Interim notebook grading**

Reading (R6): Dwayne Winseck, CMCRP (Nov 2018), *Media & Internet Concentration, 1984-2017* (pp.1-34: pdf)

**Wed Oct 30 (#8)** — Telecommunications is (highly) concentrated (2/2) — **Report due**

Reading (R6): Winseck, *Media & Internet Concentration, 1984-2017* (pp.35-74)

**Wed Nov 6 (#9)** — Telecommunications is (headed for) platform regulation (1/2) — **Quiz #3**

Readings (R7): Harold Feld (May 2019), *The Case for the Digital Platform Act: Market Structure and Regulation of Digital Platforms* (TBD)

**Wed Nov 13 (#10)** — Telecommunications is (headed for) platform regulation (2/2) — **Quiz #4**

Readings (R7): Feld, *The Case for the Digital Platform Act: Market Structure and Regulation of Digital Platforms* (TBD)

**Wed Nov 20 (#11)** — Exam review, notebook grading, course evals

**Wed Nov 27 (#12)** — **In-class exam - 3 hrs**

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### GRADING SCHEME

Engagement.....	20%
Course notebook.....	20%
Classroom quizzes (4).....	20%
Field report (1).....	20%
In-class exam (3 hrs).....	20%

**Engagement.** This component is a measure of how well you listen to and follow instructions; how well you interact with your classmates; and how much you contribute to our collective effort to learn new ideas. Being punctual, making a real effort in the course and keeping a positive attitude will help boost this grade.

**Course notebook.** You'll be graded on how thoroughly you document our discussions and your readings in your notes, which are kept for the duration of the course in a 3-ring binder. The notebook must contain sections for: i) course materials like syllabus, ii) classroom notes, iii) reading notes, and iv) a glossary.

**Classroom quizzes.** Quizzes cover the core terminology we use in the course. They're designed as a training exercise to i) learn the more difficult technical material; ii) develop skill at writing good definitions; and iii) prepare for the terminology section of the final exam. The quizzes are challenging and require careful research — there is no course “textbook” from which to glean the definitions.

**Written report.** Our major written assignment is not a conventional essay in the usual format, but a field report using observation, measurement and personal experience for source material. The emphasis is on crafting clear, accurate descriptions of the technical and financial features of the online services you use, not arguing for an abstract “thesis.” A proposal worth 5% is to be handed in prior to preparation of the final report, worth 15% (total of 20%). Students will be provided with detailed written instructions on how to research and write the report.

**Exam.** In the last class period — Nov 27, 2019. Closed book, three hours.

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## COURSE POLICIES

This section of the syllabus spells out important details about course instructions, which may be updated or amended from time to time via class discussions and/or instructor emails.

**Required readings.** They're called "required readings" because all students are required to read them — and to do so by the stipulated deadline. In order to encourage timely coverage of the core materials, students will keep an official course notebook for reading and discussion notes, and these will be vetted regularly by the instructor. All readings are available free in HTML or as PDF downloads. The syllabus, course downloads and other material are posted to the instructor's website at [www.davidellis.ca](http://www.davidellis.ca), and updated frequently.

**Attendance.** Attendance is not optional: missing any class without prior notice by email to the instructor will result in a demerit taken against the engagement component of the final grade. Regardless of the reason for missing a class, it is each student's personal responsibility to stay current on class discussions, readings and scheduled assignments. Students are entitled to miss one class during the semester for personal reasons, provided they give the instructor advance notice by email.

**Assignments.** Course assignments must be handed in, printed and stapled, by the stipulated deadline. All the material for this course should be backed up regularly on an external storage device or via a cloud service like Backblaze. Anyone not backed up who has a hard drive failure, or other computer mishap, won't get a deadline extension. As a general rule, a report handed in late will be penalized at 5 percentage points per day; any reading notes handed in late will be penalized through a demerit taken against the engagement component of the final grade.

**Email.** It's each student's responsibility to maintain a working email account for course use and to check it regularly for updates, requests and changes to assignments. When emailing the instructor, the following protocols apply:

- Send to [jdae@yorku.ca](mailto:jdae@yorku.ca)
- Send emails during business hours only
- Begin a new email unless actually replying on a prior subject
- Email subject field has 3 elements: course number — student name — the actual subject (e.g. 3510—Doe—report-proposal)
- Send attachments in PDF only, with filename identifying course, sender and contents (e.g. 3510—Doe—report-proposal.pdf)

**Networked devices in class.** Everyone must surrender their phones for the duration of each class. No one may use a laptop or other networked device in class, unless exempted under a formal York accommodation. Any attempt to circumvent this rule will be considered a serious breach of course policy.

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**STYLE SHEET FOR WRITTEN COURSE WORK***Physical*

- For report, cover page must show: title, assignment name and number (e.g. ISP Report), student name, course number, date actually submitted AND word count
- For hand-in reading notes, first page must show: student name, course number, title or description of reading, and date actually submitted
- For handwritten quizzes, first page must show: student name, course number, date and quiz number
- All hand-ins must be stapled

*Layout*

- Body copy: justified left, ragged right
- Body copy point size: 10 point max
- Font: any sans serif font
- Line spacing: double
- Left margin: 1.5 inches — other 3 margins 1.0 inches — *printed page measure and not in cm*
- No footnotes or endnotes
- All work paginated in upper right corner
- Block paragraphs — no indents — with an extra line space between paras
- Verbatim quotes of more than 2 lines must be indented

*Style*

- No paragraphs to exceed one page
- Run spell-check *and* proof-read
- Help the reader using signposts: heads, sub-heads, bullets and formatting
- Avoid weasel words: e.g. “Most people love the Internet”
- Don’t use 2nd person. Do use 1st person: “I will argue that” — not “It will be argued that”

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## UNIVERSITY POLICIES

York University has official policies covering a wide range of issues, including academic honesty, common grading scheme, firearms and weapons, free speech, parking and traffic, racism, sexual violence, transfer credits and weather emergencies, among many others. You will find the full list here: <https://secretariat-policies.info.yorku.ca/#allpol>.

### Academic Honesty

While your life on campus may not be directly affected by most of these policies, there are a number everyone should be aware of. One of the most important is the policy on academic honesty, which includes provisions on what is commonly referred to as “plagiarism.” If you are unsure what that term means, you need to read the Senate Policy on Academic Honesty:

“Academic honesty requires that persons do not falsely claim credit for the ideas, writing or other intellectual property of others, either by presenting such works as their own or through impersonation. Similarly, academic honesty requires that persons do not cheat (attempt to gain an improper advantage in an academic evaluation), nor attempt or actually alter, suppress, falsify or fabricate any research data or results, official academic record, application or document. Finally, academic honesty requires that persons do not aid or abet others to commit an offence of academic dishonesty, including intentional acts to disrupt academic activities.”

Details here: <https://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>

### Writing Support

Certain York policies cover campus resources intended to support students in various ways. For anyone struggling to improve their academic writing, the Writing Centre’s One-to-One Writing Support offers free advice from an experienced instructor. They can help you enhance your writing, better understand your assignments and discover your instructors’ expectations for your writing.

You can book online to make a 50-minute appointment either face-to-face at the Writing Centre or via video chat. Details here: <http://writing-centre.writ.laps.yorku.ca/services/one-to-one-writing-support/>

### Accommodation for Students with Disabilities

The Senate Policy on Academic Accommodation for Students with Disabilities provides guidance on the process to be undertaken to ensure that students with disabilities receive reasonable accommodation necessary to participate in and complete academic activity. The guidelines are not intended to address all matters that may affect students with disabilities in their university life. Resources include:

Student Accessibility Services — <https://accessibility.students.yorku.ca/>

Accommodating Disability: A Guide for Students, Faculty and Staff — <http://rights.info.yorku.ca/accommodating-disability-a-guide-for-students-faculty-and-staff/>

*If you have questions about these or any other York policies, please don’t hesitate to consult the instructor.*

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