# PRINCIPLES OF COMPUTER NETWORKS
## Computer Science COMP 3203
### Fall 2017

## A. CONTACTS:
- **Instructor:** Evangelos Kranakis  
  - Office hrs  
  - Room: 5360 HP  
- **TAs:** Are in **TA-room**, HP 1170 (1st floor)  
  Steven Porretta (steven.porretta@gmail.com) [Office Hrs TBA]  
  Nilofar Mansourzadeh (nilofarmansourzadeh@carleton.ca) [Office Hrs TBA]

## B. CONTENTS OF LECTURES:  
(Links are activated when needed)

<table>
<thead>
<tr>
<th>Week/Dates</th>
<th>Lecture</th>
<th>Announcements</th>
<th>Weekly Problem</th>
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<tr>
<td><strong>Week 01</strong></td>
<td>Speed Design Historical</td>
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<td>WP1</td>
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<td>Sep 07</td>
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<td><strong>Week 02</strong></td>
<td>Introduction Outline Layering</td>
<td>Assignment 1 Posted Sep</td>
<td>WP2</td>
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<td>Sep 12</td>
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<td>Sep 14</td>
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<tr>
<td><strong>Week 03</strong></td>
<td>Performance Transmission</td>
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<td>WP3</td>
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<tr>
<td>Sep 19</td>
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<td>Sep 21</td>
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<td><strong>Week 04</strong></td>
<td>Data Link Layer ErrorDetection</td>
<td>Assignment 1: Due Sep</td>
<td>WP4</td>
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<td>Sep 26</td>
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<td>Sep 28</td>
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<td><strong>Week 05</strong></td>
<td>ErrorCorrection Connectivity</td>
<td>Assignment 2: Posted Oct</td>
<td>WP5</td>
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<td>Oct 03</td>
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<td>Oct 05</td>
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<tr>
<td><strong>Week 06</strong></td>
<td>ARQs Multiaccess</td>
<td>Answers Studying for Test Old Test 1</td>
<td>Assignment 2</td>
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<tr>
<td>Oct 10</td>
<td></td>
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<tr>
<td>Oct 12</td>
<td>60 min (in class)</td>
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</tbody>
</table>
No books, notes, calculators during test!

Week 07
Oct 17
Oct 19
Ethernet
LANs

Week 08
Oct 31
Nov 02
Wireless
Location Awareness

Week 09
Nov 07
Nov 09
GPS
Locality
Old Test 2

Week 10
Nov 14
Nov 16
Token Ring
MANs
WANs
Assignment 2: Due
Assignment 3 Posted

Week 11
Nov 21
Nov 23
Routing

Week 12
Nov 28
Dec 30
IP
Kelly: Math of Traffic in Networks
WP7

Week 13
Dec 05
Dec 07
TCP: Models
TCP: Flows
Assignment 3: Due
Studying for Test

C. COURSE DESCRIPTION: This is an introductory course in Network Computing. Topics include: Protocol Architectures and Internetworking, Types of Networks, Communication Protocols, End-System and Network Traffic Management, Structure of Routing and Congestion Control. Precludes additional credit for SYSC 4602.
Prerequisites:

D. TESTS:
   ○ TEST 1 (60 min in class): For test 1: you should study everything that we covered in class up to and including the last lecture prior to test 1.
   ○ TEST 2 (60 min: to be scheduled not in class) For test 2: you should study everything that we
covered in class from test 1 up to and including the last lecture prior to test 2.

- No Books/Notes/Computing Devices of any kind allowed during the tests/quizes!

**E. STUDENTS' REQUIREMENTS:**

1. All assignments are compulsory and **must be uploaded to the course web site in CU Learn on the due date no later than 12 noon.** Submit only in pdf format (DO NOT SUBMIT zip, wordperfect, etc.)

   **It is preferable for the assignments to be typed and 20% of the grade of each assignment will be allocated to it.**

   **Late assignments will not be accepted.** The assignments-mark will be averaged over the remaining assignments if there is a serious reason (like, health problem) in which case a written certificate from the appropriate authority is required. Missing assignments are worth 0%.

2. **Plagiarism will not be tolerated.** You must always write up the solutions to assignment problems on your own and acknowledge your sources in case you used library material. On the first occasion, plagiarizing an assignment will result in assigning a 0 to all the students involved and continuation of this practice may have severe repercussions for the student(s) involved.

3. **Make-up tests are not possible.** In case of absence from a test and in order to average your mark over the remaining exams a written certificate from the appropriate authority is required, else you will receive 0%. If certificate is approved then an oral test will be given.

4. **Remarking of individual questions in a test is not possible; the whole test will be remarked,** in which case your grade for this test may either increase or decrease.

**F. GRADING AND COURSE WORK**

<table>
<thead>
<tr>
<th>TYPE OF TEST</th>
<th>#</th>
<th>% EACH</th>
<th>% OF TOTAL</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>3</td>
<td>10%</td>
<td>30%</td>
<td>Homework</td>
</tr>
<tr>
<td>Test (60 min in class)</td>
<td>1</td>
<td>30%</td>
<td>30%</td>
<td>In-class</td>
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<tr>
<td>Test (90 min final)</td>
<td>1</td>
<td>40%</td>
<td>40%</td>
<td>Final</td>
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</tbody>
</table>

**G. USEFUL TEXTS (Not Required):**

  - [Table of Contents](http://people.scs.carleton.ca/~kranakis/323-17.html) and [Companion Web Site](http://people.scs.carleton.ca/~kranakis/323-17.html)

Your study should be based on the lecture notes provided. Although I will not follow the books above you can use them as a guide for supplementary material and further study. The first is specialized on recent issues on Ad Hoc Networking, and the second on general networking techniques. You can purchase the books either from the University or any commercial bookstore.

[Here you can find additional references](http://people.scs.carleton.ca/~kranakis/323-17.html).