PRINCIPLES OF COMPUTER NETWORKS COMP 3203
(August 26, 2019)

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1 CONTACTS

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2 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.

CONTENTS OF LECTURES

1. Week 01: Sep 05 Speed, Historical
2. Week 02: Sep 10, 11 Introduction, Outline, Layering (Assignment A)
3. Week 03: Sep 17, 19 Performance, Transmission
4. Week 04: Sep 24, 26 Data Link Layer, Error Detection
5. Week 05: Oct 01, 03 Error Correction, Connectivity
6. Week 06: Oct 08, 10 ARQs, Multiaccess (Assignment B)
7. Week 07: Oct 15, 17 Ethernet, LANs (Test 1: Oct 17)
   Oct 22, 26 Fall Break
8. Week 08: Oct 29, Oct 31 Wireless, Location Awareness
9. **Week 09: Nov 05, 07** GPS, Locality (Assignment C)
10. **Week 10: Nov 12, 14** Token Ring, MANs, WANs
11. **Week 11: Nov 19, 21** Routing
12. **Week 12: Nov 26, 28** IP
13. **Week 13: Dec 03, 05** TCP

NB: Material covered in lectures may vary slightly depending on time available.

# 3 STUDENT REQUIREMENTS

## GRADING & COURSE WORK

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<thead>
<tr>
<th>Type of Test</th>
<th>#</th>
<th>% Each</th>
<th>% Total</th>
<th>Where</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>3</td>
<td>10%</td>
<td>30%</td>
<td>Homework</td>
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<tr>
<td>Test 1 (60 min)</td>
<td>1</td>
<td>30%</td>
<td>30%</td>
<td>In-class</td>
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<td>Test 2 (90 min)</td>
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<td>Final: TBA</td>
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## TESTS

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

- TEST 1: you should study everything that we covered in class up to and including the last lecture prior to test 1.
- 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.

### Additional Details & Requirements

- **Assignments**
  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 midnight. Submit only in pdf format (zip, wordperfect, jpg, etc, will not be accepted.) Typed and (mathematically) nicely and rigorously presented assignments will receive a 10% bonus on the allocated mark. Assignments will be submitted through CULearn’s course web site.
  2. Missing assignments are worth 0%. Late assignments will not be accepted. The assignments-mark will be averaged over the remaining assignments only if there is a serious reason (like, health problem) in which case a written certificate from the appropriate authority is required.
  3. 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.

4. Avoid posting code and/or solutions of assignments online on github and other places in the cloud. Students posting their code and/or solutions assignments online are making themselves a potential party to plagiarism. Other students have found that code and plagiarized their assignments and projects.

- Tests

1. Make-up tests are not possible. In case of absence from Test 1 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 is required.
2. 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.

4 USEFUL BOOKS (Not Required)

Your study should be based on the lecture notes as well as additional material provided. Although I will not follow any of the books below 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 and third on general networking techniques. You can purchase the books either from the University or any commercial bookstore. Further, you can use information available in the internet or in numerous other books.