UNIVERSITY OF REGINA

DEPARTMENT OF COMPUTER SCIENCE

CS 490AV – Topics in Data Communications & Network

CS 890DH – Topics on Communications

Spring/Summer 2020

Course Number	**CS 490AV/ 890DH**
Course Title	**Topics in Data Communications & Network/Topics on Communications**
Prerequisite	**–**
Class Hours/Week Lab Hours/Week	**3** **0**
Instructor	**Dr. Maher Elshakankiri**
Email	**Maher.Elshakankiri@uregina.ca**
Classes	**MW 4:30 – 5:45 PM** **https://zoom.us/j/6270028836**
Office Hours	**MW 5:45 – 6:30 PM** **https://zoom.us/j/6270028836**

Course Description

Main concepts of data communications and networking architectures and standards. Data transmission, transmission media, error detection and correction and data link control protocols. Overview on LANs, Ethernet and Internet Protocol. Learn about LAN network design. Study one or more advanced networking technologies.

Text Book

1- Data and Computer Communications, 10th edition, Stallings, Pearson, 2013, ISBN: 978-0133506488

Note: Take good notes of overhead slides and board explanations.

Reference Book

1- Wireless Communication Networks and Systems, Beard & Stallings, Pearson, 2016, ISBN: 978-0133594171

Topics Covered in the Course

#	Topic
1	Introduction to Data Communication and Networks
2	Protocol Architecture
3	Data Transmission
4	Transmission Media
5	Error Detection and Correction
6	Data Link Control Protocols
7	LAN Overview
8	Ethernet
9	The Internet Protocol
10	Network Design **(Mandatory for CS 890DH only)**
11	Wireless LANs
12	Advanced Topic in Communications

Course Outcomes

1. Develop knowledge of basic protocol architectures
2. Learn about different data transmission media and determine the most suitable for different networks
3. Learn about error detection and correction techniques
4. Analyse and compare different network protocols
5. Describe the major LAN types
6. Implement a complete design for LANs ranging from small to large size LANs
7. Learn and conduct a project about one of the new up-to-date technologies

Assessment Plan for the Course

1.	Class interaction	10 marks
2.	Two midterm exams	20 marks
3.	Project	30 marks
4.	Final Exam	40 marks

Important Dates (Exams)

Midterm Exam 1	Jun 1, 2020
Midterm Exam 2	Jun 22, 2020
Final Exam	TBD

Class Interaction using Socrative

We will be using Socrative for class interaction. When the instructor asks for an activity through Socrative, you need to do the following:

1. Browse https://socrative.com/
2. Click on STUDENT LOGIN
3. Type Room Name CS890DH or CSFEEDBACK (depending on the activity)
4. Start the class activity

General Rules

1. All students of this section are supposed to attend each lecture of this class. Also, students will be responsible for knowing about all the announcements that will be made in class.
2. You should check UR Courses and your University email regularly for important announcements.
3. It is strongly recommended that you complete all assignments. People who miss assignments tend to not do well on the final exam.
4. All submissions are through UR Courses only.
5. Late submissions are accepted for 24 hours only and are penalized by 10%.
6. The best way to contact me is via email.
7. Only use your university email, no other personal ones.
8. Do not send emails or messages from UR Courses.
9. Always start the subject line with the course number.
10. Always mention your name at the end of your message.
11. Students are not allowed to record the online classes by any means, audio or video.
12. Lectures provided via Zoom will be recorded by the instructor and will be made available on UR Courses. These recordings are copyright protected. Students are not allowed to share or distribute the recordings uploaded on UR courses.
13. Please note that plagiarism (and any other kind of cheating) will not be tolerated. If a student is suspected of plagiarism, their test or assignment will be sent to the Associate Dean Academic for the Faculty of Science. They will then contact the student and deal with the situation. The consequence of plagiarism or any other form of cheating may range from a zero grade to failure in the class, to expulsion from the university. Typical consequences for cheating can be found at: http://www.uregina.ca/arts/student-resources/avoiding-academic-misconduct/penalty-guidelines.html
14. Any student with a disability who may need accommodations should discuss these with the course instructor after contacting the Coordinator of the Disability Resource Office, RC 251.15, at 306-585-4631.

15. Please see the U of R General Calendar for other rules and regulations.