

# Spring AY20 SY310 Course Syllabus (MTWF)

Week	Day	Date	Topic	Reading	HW
1	Mon	6-Jan-20	No Class	(STALLINGS) Course Website Ch. 1.2 - 1.3 3.1	<a href="#">Problem Set #1</a>
1	Tues	7-Jan-20	MONDAY SCHEDULE		
1	Wed	8-Jan-20	Course Introduction / Communication Systems Overview		
1	Thur	9-Jan-20	Signals in Time & Frequency		
1	Fri	10-Jan-20	No Class		
			Fourier Analysis	Apx. A	
2	Mon	13-Jan-20	Fourier Analysis	Apx. A	<a href="#">Problem Set #2</a>
2	Tues	14-Jan-20	<a href="#">Lab 1: Part 1</a>		
2	Wed	15-Jan-20	Bandwidth & Data Rate		
2	Thur	16-Jan-20	No Class		
2	Fri	17-Jan-20	Tansmission Impairments: dB, Gain & Attenuation		
				Apx. 3A	
3	Mon	20-Jan-20	MLK Day	3.3	<a href="#">Problem Set #3</a>
3	Tues	21-Jan-20	<a href="#">Lab 1: Part 2</a>		
3	Wed	22-Jan-20	Transmission Impairments: Attenuation, Delay, Noise, SNR		
3	Thur	23-Jan-20	No Class		
3	Fri	24-Jan-20	Channel Capacity		
				3.4	
4	Mon	27-Jan-20	Transmission Media: Guided & Unguided	4.1 - 4.2	<a href="#">Problem Set #4</a>  <a href="#">EMS Worksheet</a> <a href="#">Free Space Loss Worksheet</a>
4	Tues	28-Jan-20	<a href="#">Lab 1: Part 3</a>		
4	Wed	29-Jan-20	Propagation		
4	Thur	30-Jan-20	No Class		
4	Fri	31-Jan-20	Antennas		
				4.2	
5	Mon	3-Feb-20	Analog & Digital Data, Analog-to-Digital Conv.	3.2, 5.3	<a href="#">Problem Set #5</a>  <a href="#">A/D Worksheet</a> <a href="#">Line Coding Worksheet</a>
5	Tues	4-Feb-20	Signal Encoding: Digital Data, Digital Signals (Line Coding)		
5	Wed	5-Feb-20	Signal Encoding: Digital Data, Digital Signals (Shift Keying)		
5	Thur	6-Feb-20	No Class		
5	Fri	7-Feb-20	**CAPSTONE PROJECT INTRODUCTION**		
6	Mon	10-Feb-20	Signal Encoding: Digital Data, Digital Signals (Shift Keying)	5.2	<a href="#">Problem Set #6</a>
6	Tues	11-Feb-20	<a href="#">Lab 2: Part 1</a>		
6	Wed	12-Feb-20	<a href="#">Lab 2: Part 2</a>		
6	Thur	13-Feb-20	No Class		
6	Fri	14-Feb-20	Electronic Warfare		
				<a href="#">Handout</a>	
7	Mon	17-Feb-20	President's Day	6.1-6.5	<a href="#">Problem Set #7</a>
7	Tues	18-Feb-20	<a href="#">Lab 2: Part 3</a>		
7	Wed	19-Feb-20	Error Detection		
7	Thur	20-Feb-20	No Class		
7	Fri	21-Feb-20	Forward Error Correction		
				6.6. 16.2	
8	Mon	24-Feb-20	<a href="#">Lab 3: Part 1</a>	8.1 - 8.2, 8.6	<a href="#">Multiplexing &amp; Multiple Access Worksheet</a>
8	Tues	25-Feb-20	<a href="#">Lab 3: Part 2</a>		
8	Wed	26-Feb-20	Multiplexing & Multiple Access		
8	Thur	27-Feb-20	No Class		
8	Fri	28-Feb-20	TBD		
9	Mon	2-Mar-20	Review Day		
9	Tues	3-Mar-20	**MIDTERM EXAM**		

9	Wed	4-Mar-20	Instructor Discretion	(TCP/IP GUIDE)	None
9	Thur	5-Mar-20	No Class		
9	Fri	6-Mar-20	Wireless Wrap-Up & Intro to Network Section		
	Mon	9-Mar-20	Spring Break		None
	Tues	10-Mar-20	Spring Break		
	Wed	11-Mar-20	Spring Break		
	Thur	12-Mar-20	Spring Break		
	Fri	13-Mar-20	Spring Break		
10	Mon	16-Mar-20	Intro to Networking & Network Devices	pp. 5-59, 79-134 <a href="#">Handout</a>	<a href="#">Problem Set #8</a>
10	Tues	17-Mar-20	<a href="#">Lab 4: Intro to WireShark &amp; Wifi (802.11) Lab</a>	103-105, 128-129, Stallings Chp 12.1-12.2	
10	Wed	18-Mar-20	Data Link Layer - Intro & Ethernet (802.3)		
10	Thur	19-Mar-20	No Class		
10	Fri	20-Mar-20	Data Link Layer - Wireless (802.11)	Stallings Chp. 13.1 - 13.6	
11	Mon	23-Mar-20	Network Layer - Intro & Logical Addresses (IP Address)	105-106, 233-328	<a href="#">Problem Set #9</a>
11	Tues	24-Mar-20	<a href="#">Lab 5: Address Resolution Protocol &amp; IP Header</a>	201-231	
11	Wed	25-Mar-20	Network Layer - Address Resolution Protocol (ARP)		
11	Thur	26-Mar-20	No Class	351-362, 591-595, 625-676, Handout	
11	Fri	27-Mar-20	Network Layer - Routing I		
12	Mon	30-Mar-20	Network Layer - Routing II	<a href="#">Handout</a>	<a href="#">Problem Set #10</a>
12	Tues	31-Mar-20	<a href="#">Lab 6: Man-In-The-Middle</a>	329-349, 401-421	
12	Wed	1-Apr-20	Network Layer - IPv4 & IPv6		
12	Thur	2-Apr-20	No Class		
12	Fri	3-Apr-20	Network Layer - NAT & ICMP	422-447, 505-574	
13	Mon	6-Apr-20	Transport Layer - Introduction	106-109	<a href="#">Problem Set #11</a>
13	Tues	7-Apr-20	<a href="#">Lab 7: ICMP (WireShark) &amp; IP Frag (decode)</a>	687-718	
13	Wed	8-Apr-20	Transport Layer - User Datagram Protocol (UDP)		
13	Thur	9-Apr-20	No Class	719-807	
13	Fri	10-Apr-20	Transport Layer - Transmission Control Protocol (TCP)		
14	Mon	13-Apr-20	Application Layer - Introduction	971-1051, Stallings Chp 21.5	<a href="#">Problem Set #12</a>
14	Tues	14-Apr-20	<a href="#">Lab 8: TCP</a>		
14	Wed	15-Apr-20	Application Layer - BOOTP & DHCP		
14	Thur	16-Apr-20	No Class		
14	Fri	17-Apr-20	Application Layer - DNS		
15	Mon	20-Apr-20	Application Layer - HTTP	1315-1371 Stallings Chp 24.3	None
15	Tues	21-Apr-20	<a href="#">Lab 9: Traffic Analysis (Layer 5)</a>	1215-1281 Stallings Chp 24.1	
15	Wed	22-Apr-20	Application Layer - Mail Protocols		
15	Thur	23-Apr-20	No Class		
15	Fri	24-Apr-20	Networking Practical Exam		
16	Mon	27-Apr-20	Network Wrap - up & Course Review		

16	Tues	28-Apr-20	Instructor Discretion		
16	Wed	29-Apr-20	Review and Study Day (No Class)		
16	Thur	30-Apr-20	Exam Day 1		
16	Fri	1-May-20	Exam Day 2		
16	Sat	2-May-20	Exam Day 3		
17	Mon	5-May-20	Exam Day 4		
17	Tues	6-May-20	Exam Day 5		
17	Wed	6-May-20	Exam Day 6		
17	Thur	7-May-20	Exam Day 7		

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