Course Schedule and Assignments for ELC 4384 – Spring 2020

Date	Day	Lect.	Lecture Topics	Chapter	Pages	Problems
1/13	T	1	Syllabus, Preliminaries, The Smith Chart	2	92-104	2.1all, 2.5
1/15	R	2	The Normalized Impedance and Admittance Smith Chart, Impedance Matching Networks (Part 1)	2	104-124	2.8, 2.9all, 2.10, 2.12, 2.14
1/21	T	3	QUIZ 1, Impedance Matching Networks (Part 2)	2	125-141	2.13; 2.15all
1/23	R	4	Microstrip Matching Networks SOFTWARE PROJECT 1 ASSIGNED	2	152-175	2.19all; 2.21all; 2.24all; 2.32all
1/28	T	5	QUIZ 2, Power Gain Expressions: Alternate Derivations	2	185-194	2.34all
1/30	R	6	VSWR Calculations Power Gain Equations	2 3	194-198 212-216	2.36all 3.3all; 3.4
2/4	T	7	QUIZ 3, Stability Considerations	3 AA,AB, AC	217-228 449-463	3.5all; 3.7all; 3.8;
2/6	R	8	Constant-Gain Circles, Unilateral Case SOFTWARE PROJECT 1 DUE	3	228-237	3.16all
2/11	T	9	QUIZ 4, Unilateral Figure of Merit; Bilateral Conjugate Match; SOFTWARE PROJECT 2 ASSIGNED	3 AE,AF, AG	237-247 466-473	3.21; 3.24all; 3.25all;
2/13	R	10	Operating and Available Power Gain Circles, Constant VSWR Circles	3 AI, AJ	247-273 476-479	3.26; 3.27all; 3.32all; 3.33all
2/18	T	11	QUIZ 5, BJT DC Characteristics, FET DC Characteristics	-	Handout	Handout
2/20	R	12	DC Bias Networks; SOFTWARE PROJECT 2 DUE	3	273-283	3.36all; 3.37all
2/25	T	13	QUIZ 6, Noise in Two-Port Networks; Constant Noise Figure Circles (Part 1), SOFTWARE PRJECT 3 ASSIGNED	4 AK, AL	294-302 480-492	4.1all
2/27	R	14	Constant Noise Figure Circles	4	302-322	4.4all; 4.6; 4.8; 4.12; 4.13
3/3	T	15	QUIZ 7, Miller's Theorem, Gain-Bandwidth Product	Handout	Handout	Handout
3/5	R		MIDTERM EXAM (Chapters 2, 3, 4.1, 4.2, 4.3)			
3/10, 12			NO CLASS: Spring Break			
3/17	T	16	QUIZ 8, BJT and FET AC Characteristics, Miller's Theorem, Gain-Bandwidth Product, FINAL PROJECT ASSIGNED	Handout	Handout	Handout
3/19	R	17	Broadband Amplifier Design (Part 1), SOFTWARE PROJECT 3 DUE, HARDWARE PROJECT ASSIGNED	4	322-333	4.15; 4.16all
3/24	T	17	QUIZ 9, Broadband Amplifier Design (Part 2)	4	333-348	4.21a, b
3/26	R	18	Amplifier Tuning, Bandwidth Analysis, High Power Amplifier Design (Part 1)	4	348-356	4.24all; 4.25; 4.27; 4.28
3/31	T		FINAL PROJECT: Preliminary Design Review	-	-	-
4/2	R		IEEE Texas Symposium on Wireless and Microwave Circuits and Systems	-	-	Summary Assignment
4/7	T	20	QUIZ 10, High-Power Amplifier Design (Part 2), Two-Stage Amplifier Design, HARDWARE PROJECT DUE	4	356-374	4.26; 4.29; 4.30
4/9	R	21	QUIZ 11, Two-Port Negative Resistance Oscillators	5	384-404	5.2; 5.3; 5.5; 5.7
4/14	T		FINAL PROJECT: Critical Design Review	-	-	-
4/16	R	22	QUIZ 12, Oscillator Design Using Large-Signal Measurements	5	404-411	5.8
4/21	T		NO CLASS: Diadeloso			
4/23	R	23	Oscillator Configurations	5	411-420	5.11
4/28	T	24	QUIZ 13, Oscillator Configurations, Part 2.	5	420-427	5.14
4/30	R	25	Final Project Testing, Take-Home FINAL EXAM ASSIGNED	-	-	-
5/11	M		FINAL PROJECT: Final Design Review, 9:00 – 11:00 a.m., FINAL PROJECT REPORT DUE			