

Teaching Schedule of Shanghai Jian Qiao University

一、Basic Information

Course Nr.	2080414	Name of the Course	Electrical and Electronic Technology
Credits	4.0	Total hours	48
Teacher	Ahmad Taha	Email	a.mahmoud.a.taha@gmail.com
Class		Room	NA
Main teaching material	<ul style="list-style-type: none"> • PowerPoint slides provided by the Teacher. 		
References	<ul style="list-style-type: none"> • Alexander, C. and Sadiku, M. (2004) <i>Fundamentals of Electric Circuits</i>. Fourth Edition, McGraw-Hill. • Sedra, A. and Smith, K. (2014) <i>Microelectronic Circuits</i>. Seventh Edition, Oxford University Press. • Agarwal, A. and Lang, J. (2005) <i>Foundations of Analog and Digital Electronic Circuits</i>. First Edition, Morgan Kaufmann. • Floyd, T.L. (2014) <i>Digital Fundamentals</i>. Eleventh Edition, Pearson. 		

二、Teaching Schedule of the Course

Calendar week	Lecture #	Teaching content	Teaching methods
1	1	Introduction to DC-Circuits: <ul style="list-style-type: none"> • International System of Units (SI); • Basic Physical Quantities of Circuits; • Calculation of voltage, current, power and energy. 	Lecture/Tutorial Problems
	2	DC-Circuit Laws: <ul style="list-style-type: none"> • Ohm's Law; • Active and Passive Networks (Series, Parallel, Y & Delta). 	Lecture/Tutorial Problems
	3	DC-Circuit Laws continued: <ul style="list-style-type: none"> • Source Transformation; • Voltage & Current Division; • Kirchhoff's Laws. 	Lecture/Tutorial Problems
2	4	Methods of DC-Circuit Analysis: <ul style="list-style-type: none"> • Mesh Analysis. 	Lecture/Tutorial Problems

注：课程教学进度计划表电子版公布在本学院课程网站上，并发送到教务处存档。

	5	Methods of DC-Circuit Analysis: ●Nodal Analysis.	Lecture/Tutorial Problems
	6	DC-Circuit Theories: ●Superposition Principle.	Lecture/Tutorial Problems
3	7	DC-Circuit Theories Continued: ●Thevenin's Theorem; ●Maximum Power Transfer.	Lecture/Tutorial Problems
	8	Capacitors and Inductors: ●Capacitors and Inductors;	Lecture/Tutorial Problems
	9	First-Order Circuits: ●Source Free RC Circuits; ●Step Response RC Circuit.	Lecture/Tutorial Problems
4	10	Revision and Tutorial Exercises on DC-Circuits Analysis	Tutorial Problems
	11		
	12		
5	13	Mid-term Exam	Examination
	14	Midterm Solution and Discussion	Exam Discussion
	15	Analysis of AC-Circuits: ●Sinusoids; ●Transient Response in RC Circuit.	Lecture
6	16	The ideal Op-Amp: ●Analysis of Op-Amp Circuits; ●Op-Amp Configurations; ●Op-Amp Applications.	Lecture
	17	Digital Logic Design: ●Introduction to Digital Logic.	Lecture/Tutorial Problems
	18	Digital Logic Design Continued: ●Boolean Logic; ●Decimal and Binary Number.	Lecture/Tutorial Problems
7	19	Digital Logic Design Continued: ●Combinational Logic Circuits.	Lecture/Tutorial Problems
	20	Introduction to DC and AC Signal Measurements	Lecture/Simulation
	21	Revision and Tutorial Exercises	Tutorial Problems
8	22		

	23		
	24	Final Exam	Examination

三、Evaluation methods and their proportion in the overall evaluation results

Item	Final Examination (1)	Process assessment 1 (X1)	Process assessment 2 (X2)	Process assessment 3 (X3)
Form of examination	written examination	Experimental operation and report	Midsemester	Homework and attendance
Percentage of the total score	40	20	20	20

Teacher: Ahmad Taha

Approved: Head of Department:

Date: