

Canino School of Engineering Technology
Electrical Engineering Technology

June 22, 2011

Dear Electrical Engineering Technology Student:

We want to welcome you to the Electrical Engineering Technology curriculum here at Canton College.

Besides textbooks, laboratory manual, and notebooks, you will need some specialized equipment and electronic parts for use in your laboratory studies both in the Digital Circuits and in the Electric Circuits I course. You must have the required items by the end of the first week of classes. These items are all available at our campus bookstore. However, we want to tell you about them so that you can bring them with you, if you desire, if you can find them in the area where you live.

They are listed below:

1. Large solderless breadboard with 3220 contact points: *(See Note below)
2. Small solderless breadboard with 1,360 contact points*
3. Wire jumper kit for items 1 and 2 above*
4. Electronic components (TTL Integrated Circuits and LED Displays)*
5. Digital Multimeter **with Logic Test Function*** (Does not have to be “Autoranging” or have “non-contact voltage (NCV)” detection).
6. Hand tools (Small needle nose pliers, Wire stripper, and Precision Screw Driver set (1, 1.2, 1.6, 2.0, 2.4, 3.0 mm)**
7. Useful but not required items: Wire cutters, knife, and integrated circuit extractor.

Notes: *The following pages contain detailed information regarding the specifications for each item and mail-order locations stocking each item. Equivalent items may be available from other vendors.

**The Tool Kit shown on Page 3 contains the required item plus optional tools. A supplier is also listed.

Most of our students bring their own MS Windows compatible personal computer to Canton with them; however computers are available in the laboratories for your use.

If you have any questions, please e-mail me at (Jennings@canton.edu)

Sincerely,

Robert Jennings
Program Director
Electrical Engineering Technology

DETAILED PARTS LIST FOR DIGITAL CIRCUITS - ELEC 111

<u>Quantity</u>	<u>Item</u>	<u>Jameco Part #</u>
<u>Integrated Circuits, Hex Switches, LED's, DIP switches, Pushbuttons</u>		
6	74LS00	46252
2	74LS02	46287
2	74LS03	46308
4	74LS04	46316
2	74LS05	46341
2	74LS07	46367
2	74LS08	46375
2	74LS10	46404
3	74LS11	46439
2	74LS20	47095
2	74LS21	47108
2	74LS27	47378
3	74LS32	47466
2	74LS42	47773
6	74LS76	48039
4	74LS86	48098
2	74LS125	46501
2	74LS126	46527
2	74LS240	47141
2	74LS266	47360
4	74LS283A	47423
5	LM555CN	27422
2	HEX Rotary DIP Switch	139652
6	KT11B1CM Tactile Switch	119011
2	Bar Graph LED Red	334529
2	Bar Graph LED Green	334511
2	DIP Switch 10 position Raise Rocker Sealed	788281
1	Plastic Fliptop Box for storage of parts (Optional)	100256

SUPPLIER: Jameco Electronics, 1-800-831-4242

www.jameco.com

DETAILED EQUIPMENT LIST and FIGURES FOR DIGITAL CIRCUITS - ELEC 111
and ELECTRIC CIRCUITS I - ELEC 101

Quantity	Item	Jameco Part #
1	Solderless Breadboard (Jameco Prod. No. JE27) (Containing 3220 Contact points, 4 binding posts, 4 terminal strips and 7 bus strips.)	20812
1	Solderless Breadboard (Jameco Prod. No. JE24) (Containing 1,360 Contact points, 2 binding posts, 2 terminal strips and 1 bus strips.)	20758
1	Wire jumper kit (350 pieces)	19290
1	Set of tools	170069
1	Set of 10 Alligator Clip Leads (15 " long -- 24 AWG)	10444

SUPPLIER: Jameco Electronics, 1-800-831-4242
www.jameco.com

1	Digital Multimeter with <u>logic function</u>	Amprobe 15XP-B
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SUPPLIER: Tequipment.net 1-877-742-8378
<http://www.tequipment.net/amprobe15XP-B.html>



Large solderless breadboard with 3220 contact point



Small solderless breadboard with 1,360 contacts



Wire jumper kit (350 pieces)



Set of 10 Alligator Clip Leads



Tool kit



Amprobe 15XP-B Compact Digital Multimeter with Logic Test

DETAILED PARTS LIST ELECTRIC CIRCUITS I - ELEC 101

Quantity	Item	Part #
1	Resistor kit	13RK2501
	1/4w Res. Kit containing 5 each of 73 standard 5% carbon film resistors	
	Contains the following:	
	1.0, 1.2, 1.5, 1.8, 2.2, 2.7, 3.3, 3.9, 4.7, 5.6, 6.8, 8.2, 10, 12, 15, 18, 22, 27, 33, 39, 47, 56, 68, 82, 100, 120, 150, 180, 220, 270, 330, 390, 470, 560, 680, 820, 1K, 1.2K, 1.5K, 1.8K, 2.2K, 2.7K, 3.3K, 3.9K, 4.7K, 5.6K, 6.8K, 8.2K, 10K, 12K, 15K, 18K, 22K, 27K, 33K, 39K, 47K, 56K, 68K, 82K, 100K, 120K, 150K, 180K, 220K, 270K, 330K, 390K, 470K, 560K, 680K, 820K, 1M	
1	1.0 Meg Ohm 1/2W Resistor	
1	1.0 Meg Ohm 1 Watt Resistor	
1	1.0 Meg Ohm 2 Watt Resistor	
3	100 Ohm 2 Watt Resistor	
3	330 Ohm 2 Watt Resistor	
3	18K Ohm 2 Watt Resistor	
3	33K Ohm 2 Watt Resistor	
1	1K ohm Multiturn Potentiometer Top Adjust, 25 Turns	
1	10K ohm Multiturn Potentiometer Top Adjust, 25 Turns	
1	250K ohm Multiturn Potentiometer Top Adjust, 25 Turns	
1	1mH Inductor	
1	10mH Inductor	
1	0.0047uF Capacitor, Ceramic Disc	
1	0.001uF Capacitor, Ceramic Disc	
1	0.01uF Capacitor, Ceramic Disc	
2	0.02uF Capacitor, Ceramic Disc	
1	0.1uF Capacitor, Ceramic Disc	
1	0.2uF Capacitor, Ceramic Disc	
1	0.47uF Capacitor, Ceramic Disc	
1	1uF Capacitor, Ceramic Disc	
1	15uF Capacitor, Ceramic Disc	
2	100uF Capacitor, electrolytic	
1	neon glow lamp (120 V)	
1	18 division storage box	

SUPPLIER: *Electronix Express*, 1-800-972-2225
<http://www.elexp.com/>