#### HANDOUT S03-010

# MASSACHUSETTS INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

6.002 - CIRCUITS AND ELECTRONICS
SPRING 2003

# COURSE INFORMATION

LECTURER: Prof. P.E. Gray, Rm 38-344, Ext. 3-4665, pogo@mit.edu

INSTRUCTORS: Prof. Marc A. Baldo, Rm, 13-3053 Ext.452-5132, baldo@mit.edu

Prof. lan H. Hutchinson, Rm NW17-186, Ext. 3-8760, hutch@PSFC.mit.edu Prof. Leslie A. Kolodziejski, Rm 13-3065, Ext. 3-6868, leskolo@mit.edu

**Prof. Joel E. Schindall**, Rm 10-091, Ext. 3-3934, joels@mit.edu **Prof. Gerald L. Wilson**, Rm 4-205, Ext. 3-4630, glwilson@mit.edu

TA's: Head T.A: Jeremy Braun, jtbraun@mit.edu

Akin Aina, magic@mit.edu Rikky Muller, rikky@mit.edu Eamon Walsh, ewalsh@mit.edu Chris Wilkson, ecwilkso@mit.edu Paul George, pgeorge@mit.edu

TA OFFICES ARE LOCATED IN THE LAB, RM 38-500

**LECTURES:** ONE-HOUR LECTURES WILL BE HELD ON TUESDAYS AND THURSDAYS AT 11AM.

Rm 10-250.

**RECITATIONS:** ONE HOUR RECITATIONS WILL BE HELD ON WEDNESDAYS AND FRIDAYS.

SECT#	TIME	<u> </u>	RECITATION INSTRUCTOR / TA
01	10AM	36-153	IAN HUTCHINSON/AKIN AINA
02	11 <sub>AM</sub>	36-153	MARC BALDO/RIKKY MULLER
03	12РМ	26-204	GERALD L. WILSON/ EAMON WALSH
04	11 <sub>AM</sub>	20-204	
05	1 <sub>PM</sub>	36-156	LESLIE A KOLODZIEJSKI/ PAUL GEORGE
06	2РМ	30-130	
07	9ам	26-204	JOEL E. SHINDALL/CHRIS WILKSON
80	10AM	20-204	
09	12рм	26-302	MARC BALDO/RIKKY MULLER

RECITATION ASSIGNMENTS WILL BE POSTED BY 5PM ON FRIDAY 2/7: on the 6.002 web page <a href="http://web.mit.edu/6.002/www/">http://web.mit.edu/6.002/www/</a>, outside RM 36-153.

and in the Lab, Rm 38-500.

YOU SHOULD ATTEND YOUR ASSIGNED RECITATION THROUGHOUT THE ENTIRE TERM. IF YOU MUST CHANGE YOUR RECITATION ASSIGNMENT, PLEASE CONTACT YOUR TA OR THE HEAD TA. DURING THE FIRST WEEK OF THE TERM, GO TO THE RECITATION ASSIGNED BY THE REGISTRAR

#### TUTORIALS:

TUTORIALS WILL BE HELD IN THE TA OFFICES WITHIN THE LAB, RM 38-500, on Mondays and Tuesdays, and perhaps Wednesdays, during those weeks in which there is no lab in progress. Tutorials canceled due to the Presidents Day holiday will be rescheduled by your TA.

TUTORIAL HOURS WILL BE ASSIGNED AND POSTED BY 5PM ON FRIDAY 2/7: on the 6.002 web page <a href="http://web.mit.edu/6.002/www/">http://web.mit.edu/6.002/www/</a>, outside Rm 36-153, and in the Lab, Rm 38-500.

New Video Tutorials are available on demand on the 6.002 web page. All but the tutorial on complex numbers are indexed. A list with the topics will be given at a later date

#### TEXT:

Course Notes are purchased at the Cashier's Office, Rm 10-180. Fill out the form given in the student packet handout, bring to Cashier's Office and pay for the Course Notes. Take your receipt to the EECS Instrument Rm Desk, 38-501 to get the Notes.

#### HOMEWORK:

HOMEWORK WILL BE ISSUED ON WEDNESDAYS IN RECITATION AND COLLECTED IN THE FOLLOWING WEEK ON FRIDAYS IN RECITATION.

CORRECTED HOMEWORK WITH SOLUTIONS WILL BE RETURNED IN RECITATIONS THE WEEK AFTER IT IS COLLECTED.

HOMEWORK WILL BE GRADED ON A COARSE SCALE WITH 4 LEVELS OF GRADE:

- 3) All or nearly all correct
- 2) Approximately half correct
- 1) Mostly incorrect
- 0) Late or not submitted

You are welcome and encouraged to discuss the homework among your colleagues, but the final formulation and write up of your homework answers must be your own. Submitting Homework Copied From someone else is a serious breach of ethics, and will be referred to the Committee on Discipline.

LATE HOMEWORK WILL NOT BE ACCEPTED FOR GRADING. However, total homework grades will be based on the best nine out of eleven individual homework grades. Thus, two homework assignments may be missed without a grading penalty. Note that Homework 11 is the pre-lab exercise for Lab 4, and must be completed before going to the laboratory.

## **HANDOUTS:**

EXTRA HANDOUTS FROM LECTURE AND RECITATION CAN GENERALLY BE FOUND ON THE WEB AT <a href="http://web.mit.edu/6.002/www/">http://web.mit.edu/6.002/www/</a>. For those handouts that can not be put on the web, extra copies may be found in the 6.002 drawer of the file cabinet in the SW corner of the Lab, Rm 38-500. If

# **REVISED COPY**

you find that there are no extra copies of such a handout in the drawer, please contact a TA or the lecturer.

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LABS:

Labs will be conducted during the weeks of 2/24, 3/18, 4/15 and 5/5. TA's will be available for help and lab check-off, between 1PM and 5PM during those weeks in which a lab is in progress. The laboratory has a limited number of workspaces and crowding tends to be worse toward the end of the week. Please endeavor to go to the lab early in the week.

Written lab work for the first three labs, which is to be completed in a lab notebook, will be due by 5pm on the second Monday after the week of the laboratory, i.e. 3/10, 4/7, 4/28. No written post-lab work will be due for lab 4. Because the labs are an essential and integral part of the subject, ALL LABS MUST BE COMPLETED BY THE END OF THIS TERM. PERSONS WHO FAIL TO COMPLETE THE FOUR LABS WILL RECEIVE A GRADE OF 'F' (not 'I').

YOU SHOULD FIND A LAB PARTNER TO WORK WITH FOR YOUR LABORATORY

WORK.

THREE OR MORE PEOPLE ARE NOT ALLOWED TO WORK TOGETHER. With your lab partner, you can discuss the laboratory work and collaborate in setting up the circuits and doing the measurements. While you will all obtain the same data, the write-ups of the data and the pre- and post-lab exercises must be done individually. SKIPPING THE LAB AND SUBMITTING WORK COPIED FROM SOMEONE ELSE IS A SERIOUS BREACH OF ETHICS.

LAB KITS:

LABS KITS MAY BE PURCHASED AT THE CASHIER'S OFFICE IN RM 10-180, and picked up at the EECS Instrument Desk in the Lab, Rm 38-500.

LAB BOOKS:

YOU MUST OBTAIN A THIN SQUARED-RULED HARD-COVER NOTEBOOK FOR RE-CORDING MEASUREMENTS, OBSERVATIONS AND GRAPHS OF DATA TAKEN DURING THE IN-LAB EXERCISES. These are available at the coop for under \$2. Written pre-lab and post-lab exercises are also to be completed in your lab notebook. your lab notebook must be turned in for grading on dates listed above. It will be returned before the next lab.

QUIZZES:

ONE-HOUR CLOSED-BOOK QUIZZES WILL BE GIVEN AT 7:30PM IN WALKER MEMORIAL (TOP FLOOR) ON WEDNESDAY, MARCH 5 AND THURSDAY APRIL  $9^{\text{TH}}$ .

#### FINAL EXAM: A THREE-HOUR FINAL EXAM WILL BE GIVEN DURING EXAM WEEK.

Timing and room assignments will be announced later. you may bring one two-sided sheet of notes to the exam. Obviously, the final exam must be worked on your own.

# GRADING: WEIGHTING:

### INITIAL GRADING WILL BE BASED APPROXIMATELY ON THE FOLLOWING

Homework	15%
Laboratories	15%
Evening one-hour quizzes (two together)	35%
Final Exam	35%
	100%

This numerical assessment of performance will be followed by considerable discussion among all members of the teaching staff to focus on your participation in recitations and in tutorials. This discussion can effect your letter grade, particularly if your numerical average falls on or near a letter-grade boundary.

In a previous offering of this subject a bit more than half of the final letter grades were A or B. However, the staff has no preconceived grade distribution, and it would be a pleasure to end up in May with a larger fraction of high grades.

This subject has been designed so that lectures, recitations, tutorials, homework and labs are integral and essential parts of the learning process. Although there is no specific reward for participation, there is a clearly defined penalty for not participating. Students who consistently miss recitations, tutorials, homework or labs will not benefit from the grading discussions.