

EE4280 Analog Integrated Circuits Analysis and Design II 2019 Spring Semester

1. Course Description:

This introductory course will cover the analysis and design of analog/mixed-signal integrated circuits for digital systems and for digital communications.

2. Prerequisite:

Electric Circuits, Electronics,
Analog Integrated Circuits Analysis and Design I
Signals and Systems

3. Text books:

Design of Analog CMOS Integrated Circuits, B. Razavi, McGraw Hill, 2001.

Analog Integrated Circuit Design, D. Johns and K. Martin, Wiley, 1997.

4. References:

Fundamentals of Microelectronics, B. Razavi, Wiley, 2008

Analysis and Design of Analog Integrated Circuits, P. R. Gray, P. J. Hurst, S. H. Lewis,
and R. G. Meyer, Wiley, 2001

5. Teaching Method:

Lecture: 3 hours

Outside study: 4 hours

6. Evaluation:

Homework: 40% (no late homework)

Midterm: 30% 2020/04/24 10am to 1pm

Final: 30% 2020/06/19 10am to 1pm

* Calculators are allowed in all examinations

7. Class Webpage: NTHU e-learning system (<http://lms.nthu.edu.tw>)

8. Instructor:

Ping-Hsuan Hsieh

R908 Delta Building

pshieh@ee.nthu.edu.tw

03-574-2590

EE4280 Analog Integrated Circuits Analysis and Design II 2019 Spring Semester

9. Teaching Assistants:

林毅承 yichenglin249@gmail.com
洪健倫 nick810308@gmail.com
周宜良 popo7up@gmail.com

10. Tentative Schedule:

Week #	Month	Day (Wednesday)	Day (Friday)	Topics
1	March	4	6	Nonlinearity
2		11 No class	13 (2 hours) user information due	
3		18	20 (2 hours) HW#1 due	Mismatch
4		25	27	
5	April	1	3 民族掃墓節	Oscillators
6		8	10 HW#3 due	
7		15	17	
8		22	24 Midterm	
9	May	29	1	Basic PLLs
10		6	8	
11		13	15 HW#3 due	CP-PLLs
12		20 No class	22 (2 hours)	
13		27	29 (2 hours)	
14	June	3	5 HW#4 due	Switches
15		10	12	
16		17	19 Final	

- Return your user information (available on class webpage) by **2020/03/13 12pm**
- Tutorials for HSpice, Lakers, and Spectre are available on class webpage
- Please contact TAs for EE workstation account application