National Tsing Hua University
11310 EECS 202000 Signals and Systems

Course Syllabus

Class time: W5W6R8R9   Location: Delta 215

Instructor: Chen-Bin Huang (robin◎ee.nthu.edu.tw)   Delta 859   Tel: 62180
Feel free to arrange office hour via e-mail
Head-TA: Anand Hegde (hegdeanand93◎gmail.com) EECS 311   Ext. 34926

Course Description:

This mandatory course intends to consolidate the ***mathematical*** foundations such as signal processing, communications, optics, and control. We will introduce various analysis methods along with some practical examples. We will focus on continuous-time/discrete-time signals and linear time-invariant systems. We will cover the convolution, Fourier series, Fourier transform, Laplace transform, and z-transform operations.

Textbook:

Oppenheim, Willsky, with Nawab, *Signals and Systems*, 2nd Ed., Pearson (2014).

Class notes: Course materials available on https://elearn.nthu.edu.tw/

Teaching Method:

Lectures in English. Questions are welcome both in English or Chinese.

Course Content:

- Fundamentals of Signals and Systems ▲
- Linear Time-Invariant Systems ▲
- Fourier Series Representation of Periodic Signals ◆
- The Continuous-Time Fourier Transform ▼
- The Discrete-Time Fourier Transform ●
- **Sampling** ●
- The Laplace Transform ◣
- The z-Transform ◣

Grading:

Quizzes (30%)

Examination 1 (35%)

Examination 2 (35%)

Chen-Bin Huang

<u>Ethics policy</u>:

As a student of NTHU, you are here to learn.

1. You should always bear honor and confidence in your mind. You should be responsible for your own grade and in a longer term, your future.

2. <u>Misconducts</u> during quizzes/examinations will result in immediate failure of this course.

3. Overly active club participation makes no excuse for late homework and/or missing exams.

Chen-Bin Huang