



# Calibration and Test for Space Instrument II

## (SS7018)

### **Course Overview**

Instructor: Chi-Kuang Chao

Department of Space Science and Engineering

National Central University

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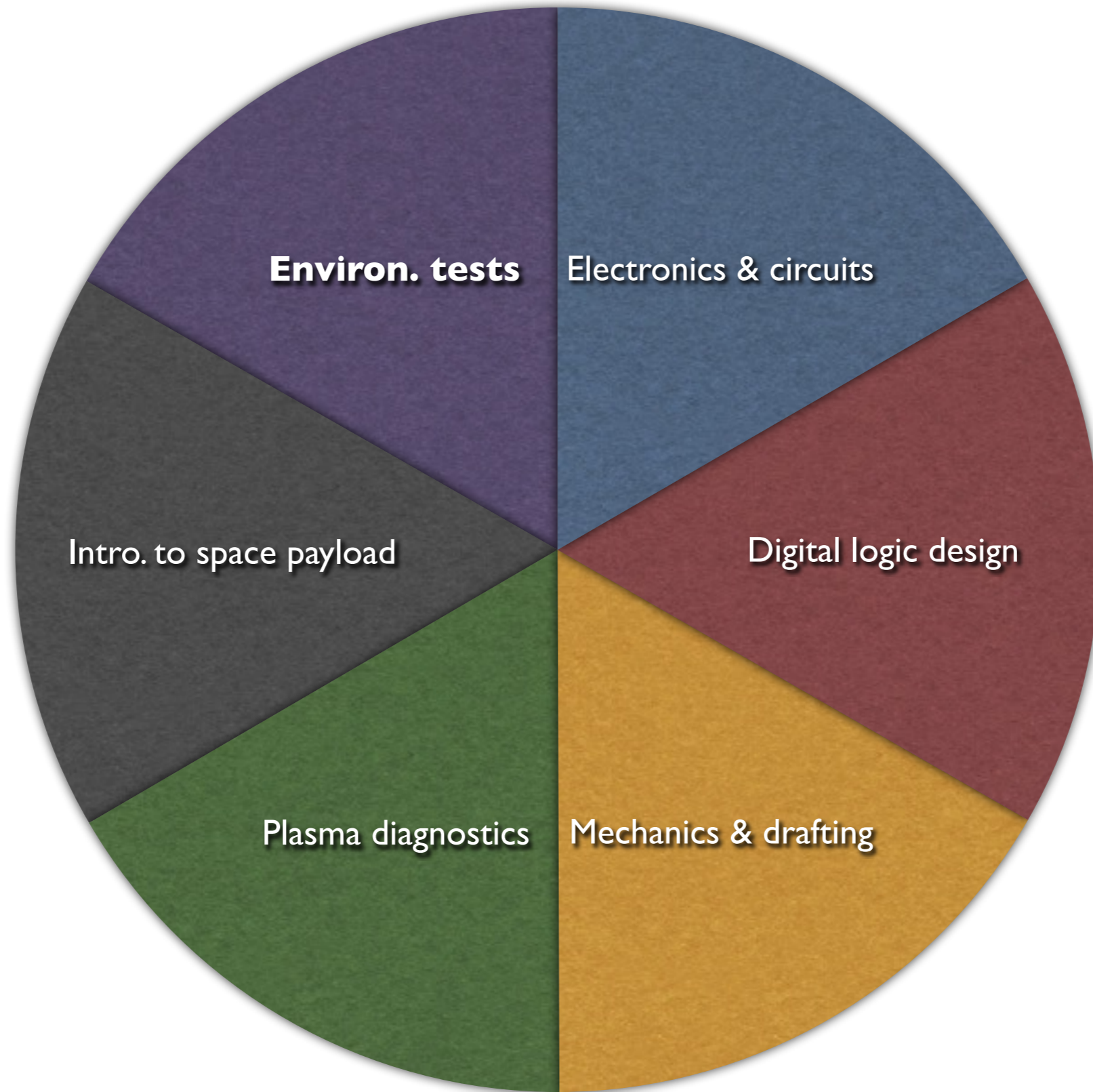
# Syllabus

- Instructor: Chi-Kuang Chao
- Course type: elective course.
- Classroom: S4-917.
- Lecture time: 3 hours/week.
- Lecture hours: 09:00 - 12:00 (WED).
- Office hours: 08:00 - 09:00 (WED).
- Online link: <https://meet.google.com/tcx-qnbo-hir>

# Course outline

- Tests
  - Space payloads
- Calibration
  - Advanced programming skills
  - Particle simulation for sensor calibration

# Space payload



# Tests

- Temperature cycling test
- Thermal vacuum test
- Vibration test
- EMC test
- Atomic oxygen analysis
- Outgassing analysis
- Radiation hardness
- Clean room

# Course materials

- In-class lecture slides: were presented during the session and can be downloaded before the session begins
- Downloaded them from <http://athena.ss.ncu.edu.tw/>

# Grading

- Presentation only, no mid-term or final test.

Week #	1st session	2nd session	3rd session
1 (2/21, 2024)	Course overview	Break	
2 (Peace Memorial Day, 2/28, 2024)	Break		
3 (3/6, 2024)	Temperature cycling test		
4 (3/13, 2024)	Thermal vacuum test		
5 (Satellite 2024, 3/20, 2024)	Break		
6 (3/27, 2024)	Thermal vacuum test		
7 (Spring break, 4/3, 2024)	Break		
8 (Mid-term, 4/10, 2024)	Vibration test		
9 (EGU 2024, 4/17, 2024)	Break		
10 (4/24, 2024)	Vibration test		
11 (5/1, 2024)	EMC test		
12 (5/8, 2024)	EMC test		
13 (5/15, 2024)	Atomic oxygen analysis		
14 (5/22, 2024)	Outgassing analysis		
15 (JpGU 2024, 5/29, 2024)	Break		
16 (6/1, 2024)	Break		
17 (6/12, 2024)	Break		
18 (Final, 6/19, 2024)	Break		



# For more information

- Please visit the course web pages at <http://athena.ss.ncu.edu.tw/>
- Contact me
  - By phone: 03-4227151
    - Ext. 65754 at S4-804 (office)
    - Ext. 36755 at S4-820 (SPL - learning facilities)
    - Ext. 65781 at S4-805-1 (SPL - core facilities)
  - By e-mail: [ckchao@jupiter.ss.ncu.edu.tw](mailto:ckchao@jupiter.ss.ncu.edu.tw)