NTHU NES 541000, Fall 2023
Nuclear Reactor Engineering
反應器工程 (Graduate Level, Offered in English)

Instructor: Prof. Shao-Wen Chen, 陳紹文教授
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Lecture time: **W3,W4,F3,** F4; **Classroom:** LTM-203
◎若因疫情需遠距，將採用 **google meet** 視訊上課**:** **https://meet.google.com/gto-cugw-bid**
(依學校公告與老師 **e-mail** 通知為準。 **)**

Grades:
Homework: 15%, Final Project: 15%
Midterm Exam: 35%, Final Exam: 35%
Note:
1. HW due: **1 week** after assigned.
2. **No plagiarizing! No copy!**

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Office: LTM-610; **Tel: 34221**

數位學習平台 **NTHU EEClass: https://eeclass.nthu.edu.tw/**

Textbook: James H. Rust, 1979, "Nuclear Power Plant Engineering", Haralson Publishing Company, Buchanan, Georgia. ISBN: 0-934534-00-4.
References: Neil E. Todreas, Mujid Kazimi, "Nuclear Systems I & II", Hemisphere Publishing Corp., ISBN: 1-56032-051-6 & 1-56032-079-6

Tentative outline: (The following outline and dates are subject to change due to unexpected events or other issues.)

1. Chapter 1 Descriptions of Nuclear Reactors (2 hours)
2. Chapter 2 Thermodynamics of Nuclear Power Plants (6 hours)
3. Chapter 3 Fluid Flow Concepts (6 hours)
4. Chapter 4 Fluid System Analysis (7 hours)

Midterm Exam, 11/1 (Wed.), 10:00am, LTM-203 (Expected)

5. Chapter 5 Heat Generation in Nuclear Reactors (7 hours)
6. Chapter 6 Heat Transfer in Nuclear Power Systems (5 hours)
7. Chapter 7 Reactor Thermal-Hydraulics Analysis (5 hours)
8. Chapter 8 Stress Analysis in Nuclear Reactor Systems (2 hours)
9. Chapter 9 Fluid Transients (2 hours)
10. Final Project Presentations (15 minutes; also submit **slides** and **report**)

Final Exam, 1/10 (Wed.), 10:00am, LTM-203 (Expected)