

00UB9L1 English for Science

Course Introduction

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NATIONAL TAIWAN NORMAL UNIVERSITY

Agenda

- 1 Introduction
 - Overview
 - Grading policy
 - Academic integrity
- 2 Some examples of academic English for science and engineering
- 3 Summary

Course information

- Instructor: Chao Wang 王超
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 - Office hours: Wednesdays and Thursdays, 2–4 PM, or by appointment
- Teaching assistant: Guo-Hao Li 李國豪
 - 61047093s@gapps.ntnu.edu.tw
- Course webpage: <https://wangc86.github.io/00ub9l1/>
 - One-page summary of this course
- Course Moodle: <https://moodle.ntnu.edu.tw/>
 - Course slides, homework assignments, discussions, etc.

Course objective and organization

- Objective: For undergraduate students to learn the basics of academic English for science and engineering.
 - 1 Effective and critical reading of scientific literature
 - 2 Elements of nonfiction, technical writing style
 - 3 Structures of research papers and technical reports
 - 4 Verbal and visual presentation using academic English
- Organization
 - 1 In-class, problem-based learning (PBL)
 - 2 Readings from the textbook and selected articles
 - 3 Exercises for writing and visual/oral presentation

This course is an EMI course

- EMI: English as a Medium of Instruction
 - promote online/offline discussion and conversation
 - make a liberal use of time to expound key ideas
 - use homework assignments as a crucial part of the learning process

Textbook and other references

- “The Elements of Style” by William Strunk Jr. and E. B. White. 4th edition. [Required]
- Check out [the course webpage](#) for additional references (will be updated throughout the semester).

Grading policy

- 30% Homework assignments
- 30% Participation
 - in-class Q&A and exercises
 - online Moodle interaction
- 10% Roll call
- 30% Final written report and final oral presentation
- All homework assignments are to be submitted via Moodle.
 - Submitting with the 24 hours past the deadline your score for that assignment will be deducted by 40%; after 24 hours, score = zero.

Academic integrity



Figure: NTNU's motto.

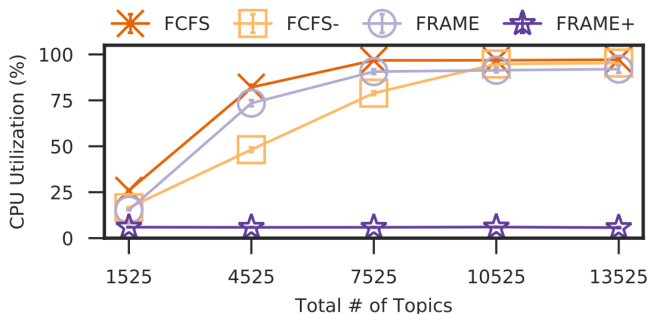
- Sincerity
 - No hypocrisy. No cheating.
- Integrity
 - Walk in the light.
- Diligence
 - Preserverence and patience.
- Simplicity
 - Keep it simple but no simpler.

Example of academic English

- Saxena, Abhinav, et al. "Damage propagation modeling for aircraft engine run-to-failure simulation." 2008 international conference on prognostics and health management. IEEE, 2008.
- "Data-driven prognostics faces the perennial challenge of the lack of run-to-failure data sets. In most cases real-world data contain fault signatures for a growing fault but no or little data capture fault evolution until failure. Procuring actual system fault progression data is typically time consuming and expensive. [...]"

Example of academic presentation

- Wang, C., Gill, C., & Lu, C. (2019, July). Frame: Fault tolerant and real-time messaging for edge computing. In 2019 IEEE 39th International Conference on Distributed Computing Systems (ICDCS) (pp. 976-985). IEEE.
- Empirical results showing the efficiency of computing service design:



A principle of plain English writing: omit needless words

- From the textbook: "Vigorous writing is concise. A sentence should contain no unnecessary words, a paragraph no unnecessary sentences, for the same reason that a drawing should have no unnecessary lines and a machine no unnecessary parts. This requires not that the writer make all his sentences short, or that he avoid all detail and treat his subjects only in outline, but that every word tell."

Summary for today

- Course overview
 - syllabus
 - logistics
 - grading policy
 - academic integrity
- Some example usage of academic English

A remark from the author of the textbook

"It is an old observation that the best writers sometimes disregard the rules of rhetoric. When they do so, however, the reader will usually find in the sentence some compensating merit, attained at the cost of the violation. Unless he is certain of doing as well, he will probably do best to follow the rules. After he has learned, by their guidance, to write plain English adequate for everyday uses, let him look, for the secrets of style, to the study of the masters of literature." – William Strunk Jr.