



大地工程專題討論 GEOTECHNICAL ENGINEERING SEMINAR

Professor:	Kuo-Hsin Yang, Ph.D. (楊國鑫博士)	
	Office:	CEB 306
	Office hours:	Anytime I am in the office (or by appointment)
	E-mail:	khyang@ntu.edu.tw
Class:	Time:	Fri 7, 8, 9
	Room:	Room 223, Civil Engineering Bldg. (土木223)
TA:	李怡穎	
	Office:	CEB 211
	E-mail:	wing@ntu.edu.tw
Textbook:	No text book is required for this course	
Reference:	Olson, R.E. "Guideline for preparation of reports" (can be downloaded from CEIBA).	

COURSE DESCRIPTION

The overall objective of this course is to provide tools for organization, documentation and presentation of research in Geotechnical Engineering. In addition, the course includes a series of lectures on the current issues of geotechnical engineering in academic research or industrial practice. The specific objectives of this course are:

- To provide a friendly forum for discussion of early stages of research, brainstorming, and solving specific technical hurdles
- To provide a forum for oral presentation of technical material
- To improve the skills in written documentation of technical material

The central concepts to be covered in this class are:

- Effective preparation of abstracts summary and reports
- Emphasis on motivation and clarity of objectives in ongoing research
- Organization of research; logic behind the scope of a research program
- Critical evaluation of the work by others: literature reviews, case histories
- Clarity in presentation of research result
- Analysis of results: validation of analytical methods, parametric evaluations
- Conclusions: summary the important finding of your research
- Integration of the different concepts covered in class into a final report

SCHEDULE

This class will meet on each Friday (3 hours per meeting) for the full semester. A tentative schedule for the class lectures will be announced online in CEIBA. The schedule and lecture PPT files will be updated frequently, so please check them periodically for the new updates. The lectures in seminar will include three components:

- Invited lecture
- ASCE award lecture (videos of Terzaghi, Peck, or Seed lectures from Geo-Institute)
- Presentation of the research results of individual students (2 or 3 per seminar)



IN-CLASS PARTICIPATION

It is essential and important to show respects to the invited lecturer by attending the class on time and concentrating on the lecture. Late for class will be subject to some penalties: late within 5 mins will be subtracted 2 points off for each class, and absence or late over 10 mins will be subtracted 5 points off for each class. Using computer during the lecture expect for the purposes of reading and taking note will be subtracted 5 points off for each class.

PRESENTATION

You will quickly learn after graduation that most practicing engineers spend more time and effort communicating their ideas, analyses, and results than they do performing technical calculations; therefore, the engineers should present their work clearly and effectively. To encourage the development of these vital professional skills, the 2nd year graduate students are required to present their research work in this class.

The presentation, including abstract, oral presentation, and Q&A, should be prepared and delivered in English. The presentation files (abstract and PPT) should be uploaded to the CEIBA by 12:00 pm on Friday. Late submission will be subtracted 5 points off.

The presentation format is:

- Abstract (Font: Times New Roman; Size: 12; Line spacing: single; Page: 1 page)
- Oral presentation (20 mins)
- Q&A (10 mins)

Suggested outline in the oral presentation is:

- Research motivation and objectives
- Research scope and flow chart
- Relevant literature review, and case histories
- Research methodology
 - Material properties, site conditions
 - Experimental test, numerical analysis, and field monitoring
- Results and Discussion
 - Experimental results: description of results, identifying significance of results
 - Numerical results: validation, analytical predictions, parametric evaluations, identification of relevant variables
 - Comparison: comparisons with published results from literature
 - Implications for engineering practice: suggestions for design and construction, validation or refinement of standards and design code
- Conclusions
 - Summary
 - Findings
 - The path forward (next steps)



LECTURE REPORT

Lecture report should be submitted for each invited lecture and ASCE award lecture (expect for student presentations). The lecture report is one page typically (Font: Times New Roman; Size: 12; Line spacing: single), covering the following information:

- Name, position, and affiliation of the lecturer
- Topic of the presentation
- Main objective: the problems/challenges to be solved
- Methodology
- Important Findings
- Summary/Conclusions
- Reflection: Do you like this presentation? What are the most impressive parts of this presentation? What are the alternative methods if you are in charge of the same task? Extended study from literature or other case studies.

The lecture report should be computer typed and prepared in Chinese or English (highly encouraged). Hand writing will not be accepted. The lecture report should be submitted at the *beginning* of next class. No credit will be received for late submission. Notably, copying the lecture report partially or entirely from other students or internet violates the academic honesty code. Students who are found to be in violation of the academic integrity policy will be subject to significant academic penalties.

FINAL REPORT

One of the most important aspects of both engineering and scientific work is the presentation of the results in written form, e.g., consulting reports, research reports, and papers. The value of a report can be diminished greatly if there is poor organization, improper grammar, clumsy sentence structure, and mechanical errors, even though a report may possess a high technical quality; therefore, the 1st year graduate students are required to write a final report.

The topic of the final report can be:

- Extended study of the lecture that you feel interested in
- Compilation and summary of literature review (at least 5 papers) relevant to your research
- Current stage of your research, including, objectives, literature review, and tentative results.

The format of final report is as Font: Times New Roman; Size: 12; Line spacing: single; Page: 10 pages. The lecture report should be computer typed and prepared in Chinese or English (extra 5 points bonus if in English). Hand writing will not be accepted. The lecture report should be submitted on 6/17. Late submission will not be accepted.

A guideline for preparation of reports written by Dr. Olson at the University of Texas can be downloaded from CEIBA. Students are encouraged to read thoroughly.



COURSE GRADE DISTRIBUTION

	2 nd year graduate student	1 st year graduate student
In-class Participation	20%	20%
Presentation and Q&A	30%	-
Question (3 times)	30%	30%
Lecture Report	20%	20%
Final Report	-	30%
Total	100%	100%

*There will be not a final exam for this course

ACADEMIC HONESTY

The engineering profession does not need, and should not tolerate, dishonesty. All students of the National Taiwan University are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code (Student Affairs) Council. Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion).



Example of Formal Format for Presenting Table and Figure

Table 2. Characteristics of Centrifuge Geotextile-Reinforced Slope Models

	Model B18	Model B12	Model D12	Model S9
Number of reinforcement layers	18	12	12	9
Vertical spacing (mm)	12.70	19.05	19.05	25.40
Reinforcement type	weak	weak	weak	strong
Reinforcement tensile strength (kN/m)	0.123	0.123	0.123	0.183
Relative density of sand (%)	55	55	75	55
Sand peak friction angle	35°	35°	37.5°	35°
g level at failure (N_f)	76.5	60	66	52.5
Elapsed time until failure (min)	53	43	60	39
Failure type	catastrophic	catastrophic	catastrophic	progressive

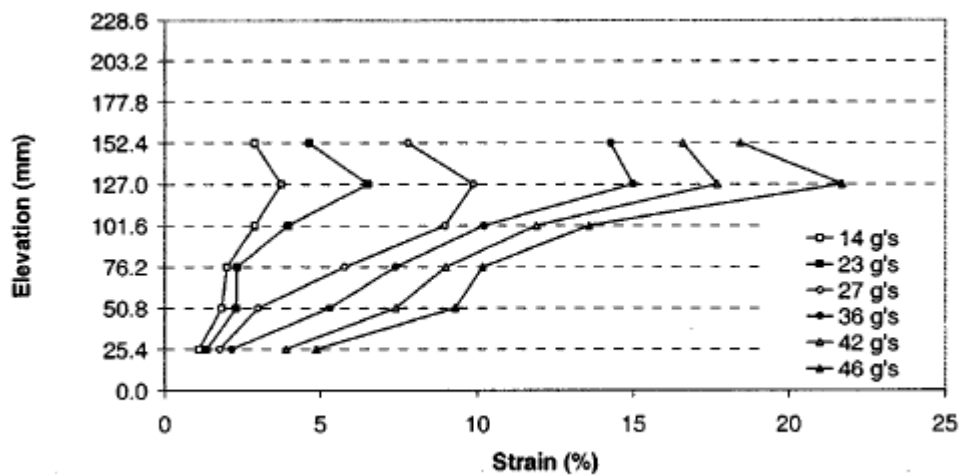


Fig. 10. Reinforcement peak strain distribution: Model S9



EXAMPLE OF FORMAL FORMAT FOR WRITING EMAIL

The screenshot shows an email client window titled "Make an appointment to ask questions in HW2 - Message (HTML)". The interface includes a menu bar (Message, Insert, Options, Format Text, Adobe PDF) and a ribbon with various tools like Paste, Bold, Italic, Underline, Text Color, Background Color, Bulleted List, Numbered List, Indent, Outdent, Address Book, Check Names, Attach File, Attach Item, Business Card, Calendar, Signature, Follow Up, and Spelling. The email content is as follows:

To: Yang, Kuo-Hsin (楊國鑫)

Subject: Make an appointment to ask questions in HW2

Dear Dr. Yang,

I am one of your students in the foundation class.
I have some questions related to Hw2.
I would like to make an appointment with you to clarify my questions.
May I talk to you right after our Monday class?
Please let me know your availability at your convenience.

Best Regards,

Kuo-Hsin

Kuo-Hsin Yang, Ph.D.
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Please consider the environment before printing this email.

Annotations in red text and boxes highlight the following parts:

- Subject**: Make an appointment to ask questions in HW2
- Proper tile to whom you e-mail to**: Dear Dr. Yang,
- Content**: The main body of the email text.
- Ending Greeting**: Best Regards,
- Signature**: The contact information for Kuo-Hsin Yang, Ph.D.