

CS 5319

Advanced Discrete Structure

Overview:
General Info, Scope, Assessment

General Information

- **Webpage**

www.cs.nthu.edu.tw/~wkhon/comb10.html

- **Lecturer**

Wing-Kai Hon (韓永楷), wkhon@cs.nthu.edu.tw

- **TA**

Wisely Ku (古宗翰), thku@cs.nthu.edu.tw

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- **Meeting Times**

Tuesday 1520—1710, Thursday 1520—1610

What is the course about ?

- Extension to Discrete Maths
 1. Permutations and Combinations
 2. Generating Functions
 3. Recurrence Relations
 4. Methods of Proving
 5. Number Theory
 6. Group Theory
 7. Automata Theory

What is the course about ?

- The above topics are related to many useful applications, such as :
 1. Code Design
 2. Cryptography
 3. Theory of Computation
 4. Data Compression
 5. Analysis
 6. Network Design

Textbook & References

Materials are selected from the following books:

- **Introduction to Combinatorial Mathematics**
by CL Liu
- **Concrete Mathematics**
by R Graham and others
- **Proofs from the BOOK**
by M Aigner and GM Ziegler

Assessments

7 Assignments:

Best five (total)	50 %
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Remaining two (total)	5 %
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3 Exams (each 15%)	45%
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Total =	100%
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Study Tips

- Have a fresh mind in class
- Don't be shy, ask questions
- Try your best to do every assignments
(You're encouraged to work in small groups,
but have to write the answers independently –
that means, using your own words)
- Discuss with others, help the others
- Most importantly: **Have Fun !!**