

# Electromagnetics I

## VE230

# Welcome!

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LECTURER: NANA LIU  
SUMMER 2023



JOINT INSTITUTE  
交大密西根学院

# A little bit about myself...

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I have been a professor at the Joint Institute for two years so far

I'm also a professor at the Institute for Natural Sciences in SJTU

My main research area is quantum information and quantum computation

Website: [nanaliu.weebly.com](http://nanaliu.weebly.com)

Here are your lovely and helpful TAs this term...

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Boyuan

Renxiang

Hu Fan

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Some important logistics  
about the course...

# Course logistics

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1. Online class basics
2. Class timetables
3. Contacts
4. Assessments
5. Reference materials

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# Online class basics

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1. If you are not speaking, please mute your microphones. If you want to speak, don't forget to turn your microphones back on.
2. I prefer you to speak up during class if you can. We want to hear your lovely voices 😊 You can also use the 'raise your hand' button. However, if I don't answer, it means I didn't see it, so easier just to speak up!
3. If any questions are not answered in class, please use the recitation classes or office hours. More on this later
4. If you are experiencing any technical issues with Feishu your TAs will help you

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# Class timetables

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Here are the available contact hours you will have with your instructors. You will have lectures on new materials and recitation classes.

1. Class lectures (Nana):  
Tuesday 6:20-8:00pm  
Thursday 6:20-8:55pm

# Class timetables

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Here are the available contact hours you will have with your instructors.

You will have lectures on new materials and recitation classes.

2. Recitation classes with your TAs. 2 hours every week

Schedule will be announced soon on canvas

# Course logistics

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# Contacts

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Email contacts:

Nana (joint email with TAs dedicated to this course):  
[nanaumsjtu@gmail.com](mailto:nanaumsjtu@gmail.com).

Boyuan: [zhangboyuan-sgr@sjtu.edu.cn](mailto:zhangboyuan-sgr@sjtu.edu.cn)

Renxiang: [alvin\\_guan@sjtu.edu.cn](mailto:alvin_guan@sjtu.edu.cn)

Hu Fan: [hu-fan@sjtu.edu.cn](mailto:hu-fan@sjtu.edu.cn)

Note: if you have a private issue where you don't want your email read by the TAs and it's for my eyes only, then you can contact me at [nana.liu@sjtu.edu.cn](mailto:nana.liu@sjtu.edu.cn).

# Course logistics

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# Assessments

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You will have the following outside-class work to do to help you better consolidate the material

1. Homework: 9 of these, will be given once a week outside of exam weeks

These will be collected but will not form a fraction of your total grade. However, doing these regularly means you will understand better and I might pick out problems here randomly for exams and quizzes

2. 6 in-class quizzes: 20%
3. 2 mid-term exams: 25%+25%
4. Final exam: 30%

# Assessments

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1. For quizzes and exams:
  - a) No talking or collaboration, just like in a normal quiz/exam
  - b) Closed book. Only basic calculator allowed
  - c) This will be proctored by me and your TAs. These are university rules.
2. For exams:
  - a) 100 minutes each for 3 exams
  - b) 1 cheat-sheet allowed

These rules are the same for the previous EM classes, so I'm afraid I cannot make any exceptions or change the rules

# Assessments

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JI Honor Code:

<http://umji.sjtu.edu.cn/academics/academic-integrity/honor-code/>



# Assessments

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Relax...and enjoy your learning!

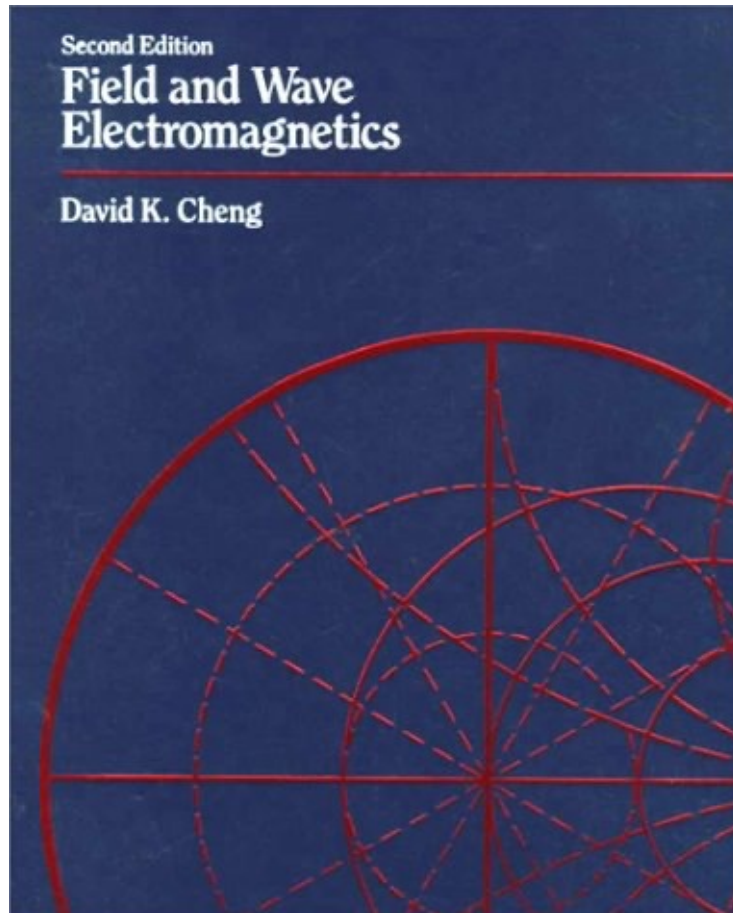
# Course logistics

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# Reference materials

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Main textbook

# Reference materials

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Introduction to Electrodynamics (3rd Edition), David J. Griffiths, 世界图书出版公司 9787506272896

Elements of Engineering Electromagnetics (5th Edition), Nannapaneni Narayana Rao, Prentice Hall International, Inc. ISBN: 0130255610

Fundamentals of Applied Electromagnetics (7th Edition), F. T. Ulaby, U. Ravaioli, Pearson, ISBN: 0133356817

Electricity and Magnetism (3<sup>rd</sup> Edition), Edward M. Purcell and David J. Morin, Cambridge, ISBN: 9781107014022

The Feynman Lectures on Physics, Richard P. Feynman, Robert B. Leighton, and Matthew Sands, Pearson, ISBN: 0201510049, Volume II

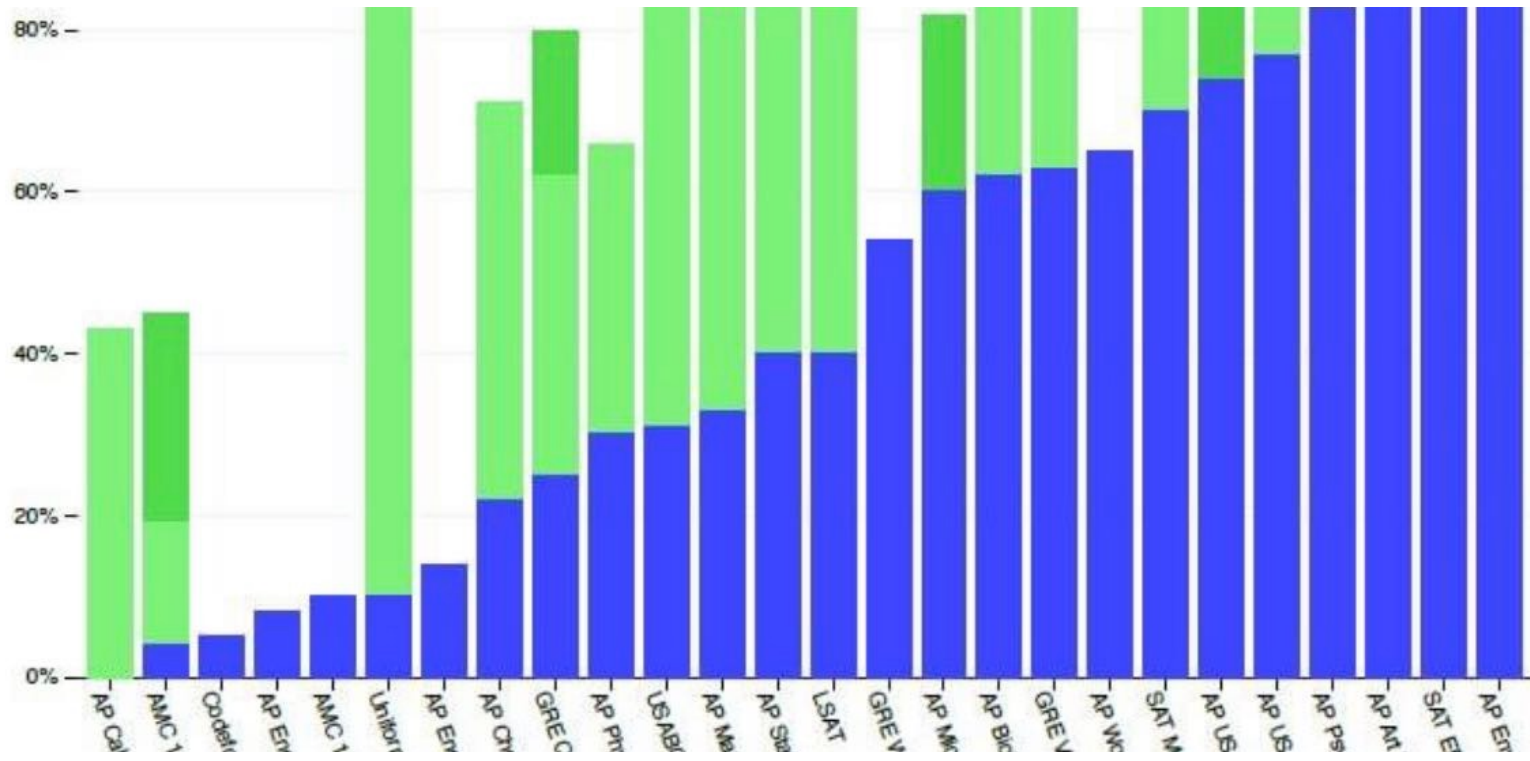
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Questions before we get to  
the science?

# A few rules in my class...

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- There's no such thing as a stupid question
- Questions are more important than answers
- Feel free to be vocal about anything you disagree with or are uncomfortable with
- Encourage each other
- Have fun!! 😊



# About grades...

Blue: Chat GPT3.5  
Green: Chat GPT4

# More grades...

Uniform Bar Exam (MBE+MEE+MPT)	298 / 400 (~90th)
LSAT	163 (~88th)
SAT Evidence-Based Reading & Writing	710 / 800 (~93rd)
SAT Math	700 / 800 (~89th)
Graduate Record Examination (GRE) Quantitative	163 / 170 (~80th)
Graduate Record Examination (GRE) Verbal	169 / 170 (~99th)
Graduate Record Examination (GRE) Writing	4 / 6 (~54th)
USABO Semifinal Exam 2020	87 / 150 (99th - 100th)
USNCO Local Section Exam 2022	36 / 60
Medical Knowledge Self-Assessment Program	75 %
Codeforces Rating	392 (below 5th)
AP Art History	5 (86th - 100th)
AP Biology	5 (85th - 100th)
AP Calculus BC	4 (43rd - 59th)
AP Chemistry	4 (71st - 88th)
AP English Language and Composition	2 (14th - 44th)
AP English Literature and Composition	2 (8th - 22nd)
AP Environmental Science	5 (91st - 100th)
AP Macroeconomics	5 (84th - 100th)
AP Microeconomics	5 (82nd - 100th)
AP Physics 2	4 (66th - 84th)
AP Psychology	5 (83rd - 100th)
AP Statistics	5 (85th - 100th)
AP US Government	5 (88th - 100th)
AP US History	5 (89th - 100th)



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Tell me a little about you...