

# Electromagnetics I

## VE230

# Welcome!

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LECTURER: NANA LIU  
SUMMER 2020



JOINT INSTITUTE  
交大密西根学院

# A little bit about myself...

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I'm a new professor in the Joint Institute. I'm also joining as 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)

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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 zoom, write in the chat group and our TA today Xiaoxue will help you
5. Try to enjoy the new online learning environment!

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# Class timetables

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

1. Class lectures (Nana):

New materials: 4 lecture hours per week for 12 weeks

Tuesdays 6:20-8:00pm

Thursdays 6:20-8:00pm

Discussion sessions (Nana): 1 lecture hour per week for 12 weeks

Thursdays 8:00-8:40pm



# Class timetables

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

Lectures on new materials and recitation classes are compulsory

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

1) Naihao: Wednesday 8am-10am

2) Xiaoxue: Monday 6:30pm-8:30pm

3) Shuyuan: Friday 6:30pm-8:30pm

# Class timetables

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Attendance requirements:

Take these online classes with the same attitude as you would for real in-person classes. It will help you learn in the long-run 😊

Lectures and recitation classes are compulsory and attendance will be noted on the online system. Should make more than 6 recitation classes of more than 1 hour each

If you have special circumstances, please let me know by end of today, since university rule is missing more than 50% of lectures and recitation classes result in a fail.

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# Contacts

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Office hours: on zoom

1. Nana: Tuesdays 4-6pm
2. Naihao: Saturday 8am-10pm
3. Xiaoxue: Wednesday 1pm-3pm
4. Shuyuan: Monday 10am-12pm

Email contacts:

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

Naihao: [dnaihao@umich.edu](mailto:dnaihao@umich.edu)

Xiaoxue: [xxzhong0609@sjtu.edu.cn](mailto:xxzhong0609@sjtu.edu.cn)

Shuyuan: [hsy1108@sjtu.edu.cn](mailto:hsy1108@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).

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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: 15%
3. 2 mid-term exams: 25%+25%
4. Final exam: 30%
5. Attendance: 5%

# Assessments

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

These rules are the same in the two streams of EM1, 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!

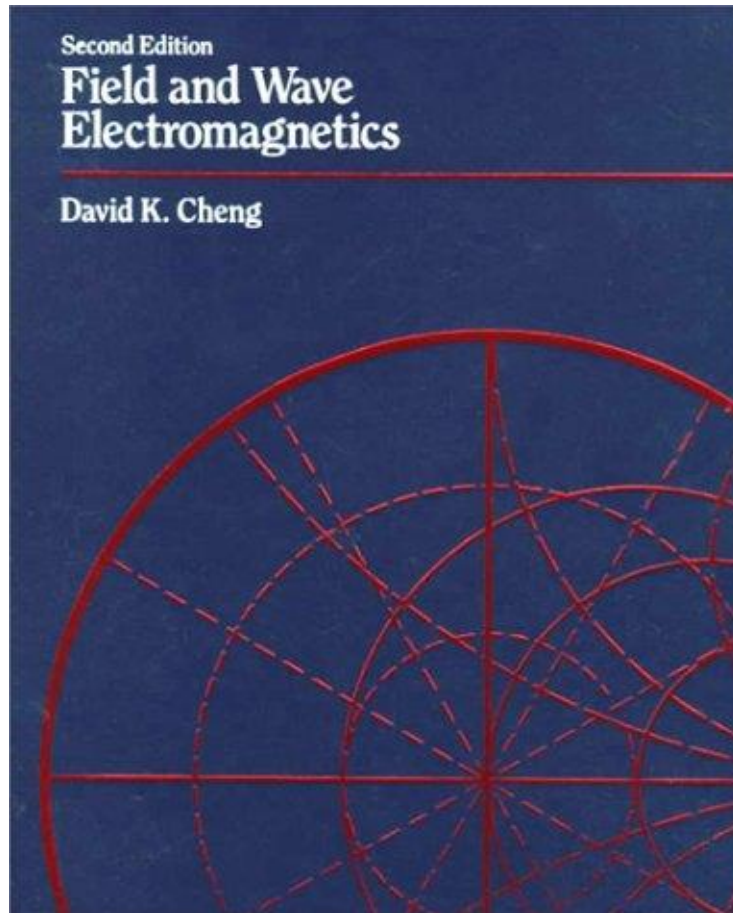
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# Reference materials

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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

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Questions before we get to  
the science?