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1 Research Interests

Primary research interests are related to the modeling and simulation of static/dynamic inelastic behavior of engineering solids and structures. Focus is on the development and application of a computational framework for high performance, time domain, nonlinear/inelastic, deterministic or probabilistic, multidimensional, finite element modeling and simulation. One particular interest is the propagation and dissipation of seismic wave energy during earthquake soil structure interaction. Developed analysis framework, along with extensive verification and illustrative examples, is part of the Real-ESSI Simulator System (<http://real-essi.info>). Current work include:

- High performance computing and visualization in structural and geotechnical mechanics
 - Thermomechanical-based energy analysis methodology for nonlinear system
 - Static and dynamic modeling of elastic/inelastic material behavior
 - Modeling and simulation of earthquake soil structure interaction system
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2 Teaching Interests

Teaching interests are closely connected with, but not limited to, my research focuses, which are on the theoretical, computational, and applied aspects of mechanics on both undergraduate and graduate levels. In particular, recent teaching activities and interests include:

- Theoretical and computational elastic-plastic mechanics
 - Static and dynamic, nonlinear finite element methods
 - Application of computational modeling and simulation system to engineering problems
 - Fundamental aspects of theoretical mechanics
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3 Education

Doctor of Philosophy in Geotechnical Engineering at the University of California, Davis. August 2019. Thesis title: "*Energy Dissipation Analysis Framework for Soil Structure Interaction*". Advisor: Professor Boris Jeremić.

Bachelor of Engineering in Hydraulic Engineering at Tsinghua University, Beijing, China. June 2015. Thesis title: "*Study on the meso-fabric development of granular materials based on DEM*". Advisor: Associate Professor Wen-Jie Xu.

4 Academic Experience

Graduate Student Researcher at the University of California, Davis. Sep 2015 – Present.

- **High Performance, Multidisciplinary Simulations for Regional Scale Earthquake Hazard and Risk Assessments.** 2017 – Present, with Prof. Boris Jeremić (UCD, LBNL), Prof. David McCallen (UNR, UCOP, LBNL), Dr. Anders Petersson (LLNL), Dr. Hans Johansen (LBNL), Dr. Arthur Rodgers (LLNL), and Prof. James Rector (UCB and LBNL).

Modeling and simulation of large-scale earthquake soil structure interaction systems;
Energy dissipation analysis for damage assessment and design improvement;
Post-processing and visualization of large-scale finite element simulation results.

- **A Modern Computational Framework for the Nonlinear Seismic Analysis of Nuclear Facilities and Systems.** Sep 2015 – Present, with Prof. Boris Jeremić (UCD, LBNL), Prof. David McCallen (UNR, UCOP, LBNL), and Prof. Ian Buckle (UNR).

Theoretical and computational work on inelastic material models for solids and structures;
Modeling, simulation, and visualization of inelastic systems for general purposes;
Simulation and visualization of large-scale earthquake soil structure interaction systems;
Modeling of energy dissipation in soils, structures, and their interactions.

Undergraduate Student Researcher at Tsinghua University. Aug 2013 – Jun 2015.

- **Meso-Fabric Evolution of Granular Materials based on Discrete Element Method.** Aug 2013 – Jun 2015, with Assoc. Prof. Wen-Jie Xu (Tsinghua University).

Modeling and simulation of granular materials using discrete element method;
Statistical analysis and visualization of meso-fabric evolution in granular material.

- **Double-Arch Dam Modeling and Stability Study of the Dagangshan Dam in Sichuan, China.** Jul 2015 – Aug 2015, with Mr. Da-Lei Wang (China Guodian Corporation) and the Department of Hydraulic Engineering (Tsinghua University).

Field investigation, data collection/organization, and modeling studies.

- **Mapping and Geological Study in Hebei, China.** Jul 2015 – Aug 2015, with Assoc. Prof. Wen-Jie Xu (Tsinghua University), Prof. Qing-Bo Wen (Tsinghua University).

Project management, exploration route planning, and geological investigations.

Visiting Scholar at the University of Hong Kong. Aug 2014 – Sep 2014.

- **Geotechnical Hazard Investigation.** Aug 2014 – Sep 2014, with Prof. Zhong-Qi Yue (HKU).

Case study, analysis, and discussion on geotechnical hazards and mitigation methods;
Literature review on the probable causes of seismic events.

5 Teaching Experience

Teaching ratings and comments by anonymous students are attached in [Appendix A](#).

Teaching Assistant at the University of California, Davis. Sep 2016 – Present.

- **ECI 280B: Linear and Nonlinear Dynamic Finite Elements, with Emphasis on Earthquake-Soil-Structure Interaction.** Graduate course. Spring 2018. Course instructor: Prof. Boris Jeremić.
Substitute lectures, software learning sessions.
- **ECI 280A: Nonlinear Finite Elements for Elastic-Plastic Problems.** Graduate course. Winter 2018. Course instructor: Prof. Boris Jeremić.
Substitute lectures, software learning sessions.
- **ENG 104L: Mechanics of Materials Lab.** Undergraduate course. Winter 2019, Winter 2018. Course instructor: Prof. Amit Kanvinde.
Nominated for Outstanding Graduate Student Teaching Award (OGTA);
Lectures, lab sections, and lab report grading.
- **ENG 104: Mechanics of Materials.** Undergraduate course. Fall 2016, Fall 2018. Course instructor: Prof. Boris Jeremić.
Nominated for Outstanding Graduate Student Teaching Award (OGTA);
Substitute lectures, preparation of homework questions and solutions, office hours.
- **ENG 35: Statics.** Undergraduate course. Winter 2017. Course instructor: Prof. Mark M. Rashid.
Nominated for Outstanding Graduate Student Teaching Award (OGTA);
Discussion sections, office hours, and exam grading.

6 Professional Experience

Engineer in Training (EIT). Civil Engineering, California, USA. Aug 2019 – Present.

Reviewer of ASCE's Journal of Engineering Mechanics. Nov 2018 – Present.

Student Member of the American Society of Civil Engineers (ASCE). Oct 2017 – Present.

Member of the Geotechnical Graduate Student Society (GGSS) at UC Davis. Sep 2015 – Present.

Consultant for Project: Support System in Soft Soil Excavation Sites, Tianjin, China. Sep 2014.

Marketing & HR Assistant at Thermo Fisher Scientific (China) Co., Ltd. Jan 2013 – Feb 2013.

7 Honors and Awards

Fugro West Fellowship in Recognition of Outstanding Academic Achievement, Department of Civil and Environmental Engineering, University of California, Davis. March 2019.

Outstanding Graduate Student Teaching Award Nomination for ENG 104L: Mechanics of Materials Lab, University of California, Davis, March 2019.

Outstanding Graduate Student Teaching Award Nomination for ENG 104: Mechanics of Materials, University of California, Davis, January 2019.

Outstanding Graduate Student Teaching Award Nomination for ENG 35: Statics, University of California, Davis, February 2017.

Outstanding Graduate Student Teaching Award Nomination for ENG 104: Mechanics of Materials, University of California, Davis, February 2017.

National Outstanding Graduate in Hydraulic Engineering, China, July 2015.

Outstanding Undergraduate Thesis, Tsinghua University, June 2015.

University Scholarship for Research and Innovation Excellence, Tsinghua University, September 2014.

Department Scholarship for Research Excellence, Department of Hydraulic Engineering, Tsinghua University, September 2014.

8 Technical Meetings

1. **The 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN)**. June 24–26, 2019. Creta Maris Conference

Centre, Crete, Greece.

2. **The 7th International Conference on Earthquake Geotechnical Engineering (ICEGE).** June 17–20, 2019. Angelicum Congress, Rome, Italy.
3. **The 13th World Congress on Computational Mechanics (WCCM).** July 22–27, 2018. New York Marriott Marquis, New York City, NY, USA.
4. **The 11th National Conference on Earthquake Engineering (NCEE).** June 25–29, 2018. Westin Bonaventure Hotel and Suites, Los Angeles, CA, USA.
5. **The 5th Geotechnical Earthquake Engineering and Soil Dynamics (GEESD).** June 10–13, 2018. AT&T Executive Education and Conference Center, Austin, TX, USA.
6. **DOE Project Meeting.** March 16, 2018. Lawrence Berkeley National Laboratory, Berkeley, CA, USA.
7. **The 11th Geotechnical Graduate Student Society (GGSS) Round Table.** March 1, 2018. University of California, Davis, CA, USA.
8. **Workshop on Assessment of Structures Subject to Concrete Pathologies (ASCET) Phase III.** April 16–17, 2018. OECD Nuclear Energy Agency (NEA), Paris, France.
9. **The 15th International Conference of the International Association for Computer Methods and Advances in Geomechanics (IACMAG).** October 19–23, 2017. Hongshan Hotel, Wuhan, China
10. **The 3rd International Conference on Performance Based Design in Earthquake Geotechnical Engineering (PBDIII).** July 16–19, 2017. Westin Bayshore Hotel, Vancouver, BC, Canada.
11. **DOE Project External Advisory Board Meeting.** June 10 2017. Lawrence Berkeley National Laboratory, Berkeley, CA, USA.
12. **DOE Project Update and Look Ahead Meeting.** March 31 2017. University of California, Davis, CA, USA.
13. **Tsinghua University Graduate Student Seminar.** December 30, 2016. Tsinghua University. Beijing, China.
14. **DOE Project Meeting.** November 4, 2016. Lawrence Berkeley National Laboratory, Berkeley, CA, USA.

15. **DOE Project Meeting.** August 19, 2016. University of Nevada, Reno, NV, USA.
 16. **DOE Project Meeting.** July 29, 2016. University of California, Davis, CA, USA.
 17. **DOE Project Meeting.** June 10, 2016. Lawrence Berkeley National Laboratory, Berkeley, CA, USA.
 18. **DOE Project Design Review Meeting.** December 11, 2015. University of California, Davis, CA, USA.
 19. **DOE Project Meeting.** September 18, 2015. Lawrence Berkeley National Laboratory, Berkeley, CA, USA.
 20. **American Geophysical Union (AGU) 2015 Fall Meeting.** December 14–18, 2015. Moscone Center, San Francisco, CA, USA.
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9 Publications

Books

1. Boris Jeremić, Zhaohui Yang, Zhao Cheng, Guanzhou Jie, Nima Tafazzoli, Matthias Preisig, Panagiota Tasiopoulou, Federico Pisanò, José Abell, Kohei Watanabe, Yuan Feng, Sumeet Kumar Sinha, Fatemah Behbehani, **Han Yang**, and Hexiang Wang. *Nonlinear Finite Elements: Modeling and Simulation of Earthquakes, Soils, Structures and their Interaction*. University of California, Davis, CA, USA; and Lawrence Berkeley National Laboratory, Berkeley, CA, USA. 1989-2019. ISBN: 978-0-692-19875-9. (Available for download from [here](#).)

Papers in Peer-Reviewed Journals

All papers in review and drafts in preparation are complete and available upon request.

1. **Han Yang**, Hexiang Wang, and Boris Jeremić. A Modern Energy-Based Design Framework for Soil Structure Interaction System. *Soil Dynamics and Earthquake Engineering*. 2019. [In Review]
2. **Han Yang**, Hexiang Wang, Yuan Feng, and Boris Jeremić. Plastic energy dissipation in pressure-dependent materials. *ASCE Journal of Engineering Mechanics*. 2019. [Accepted]
3. **Han Yang**, Yuan Feng, Hexiang Wang, and Boris Jeremić. Energy dissipation analysis for inelastic reinforced concrete and steel beam-columns. *Engineering Structures*. 197 (2019). [Available Online]

4. **Han Yang**, Yuan Feng, Hexiang Wang, Fangbo Wang, and Boris Jeremić. Energy dissipation in solids due to material inelasticity, viscous coupling, and algorithmic damping. *ASCE Journal of Engineering Mechanics*. 145.9 (2019). [Available Online]
5. Yuan Feng, Kaveh Zamani, **Han Yang**, Hexiang Wang, Fangbo Wang, and Boris Jeremić. Procedures to build trust in nonlinear elastoplastic integration algorithm: Solution and code verification. *Engineering with Computers*. (2019): 1-14. [Available Online]
6. Hexiang Wang, **Han Yang**, Yuan Feng, Fangbo Wang, and Boris Jeremić. Wave Potential - Domain Reduction Method for 3D Earthquake Soil Structure Interaction. *Soil Dynamics and Earthquake Engineering*. 2019. [In Review]
7. Hexiang Wang, Fangbo Wang, **Han Yang**, Jeff Bayless, Marco Baglio, Norman A. Abrahamson, and Boris Jeremić. Time Domain Intrusive Stochastic Framework for Seismic Risk Analysis. *Earthquake Engineering and Structural Dynamics*. 2019. [In Review]
8. Hexiang Wang, Fangbo Wang, Jeff Bayless, **Han Yang**, Marco Baglio, Norman A. Abrahamson, and Boris Jeremić. Time Domain Intrusive Stochastic Seismic Risk Analysis using Ground Motion Prediction Equations of Fourier Amplitude Spectra. *Earthquake Spectra*. 2019. [In Review]
9. **Han Yang**, Sumeet Kumar Sinha, Yuan Feng, David B McCallen, and Boris Jeremić. Energy dissipation analysis of elastic-plastic materials. *Computer Methods in Applied Mechanics and Engineering*. 331 (2018): 309-326.
10. **Han Yang**, Wen-Jie Xu, Qi-Cheng Sun, and Yuan Feng. Study on the meso-structure development in direct shear tests of a granular material. *Powder Technology*. 314 (2017): 129-139.
11. **Han Yang**, Wen-Jie Xu, and Qi-Bin Zhang. Macro- and meso-mechanism study of strain localization in granular material. *Chinese Journal of Rock Mechanics and Engineering*. 34.08 (2015): 1692-1701.

Papers in Peer-Reviewed Conferences

1. **Han Yang**, Yuan Feng, Hexiang Wang, Fangbo Wang, and Boris Jeremić. Seismic energy flow calculation for Earthquake Soil Structure Interaction System. *In Proceedings of the 25th Structural Mechanics in Reactor Technology (SMiRT) Conference*. Charlotte, North Carolina, USA. August 04-09, 2019.
2. Hexiang Wang, Yuan Feng, **Han Yang**, Fangbo Wang, and Boris Jeremić. Stress Test Seismic Motions for Nuclear Installations. *In Proceedings of the 25th Structural Mechanics in Reactor Technology (SMiRT) Conference*. Charlotte, North Carolina, USA. August 04-09, 2019.

3. Hexiang Wang, Fangbo Wang, **Han Yang**, Yuan Feng, Jeff Bayless, Norman A. Abrahamson, and Boris Jeremić. Time Domain Seismic Risk Analysis Framework for Nuclear Installations. *In Proceedings of the 25th Structural Mechanics in Reactor Technology (SMiRT) Conference*. Charlotte, North Carolina, USA. August 04-09, 2019.
4. Fangbo Wang, Hexiang Wang, **Han Yang**, Yuan Feng, and Boris Jeremić. Stochastic Earthquake Soil Structure Interaction Analysis. *In Proceedings of the 25th Structural Mechanics in Reactor Technology (SMiRT) Conference*. Charlotte, North Carolina, USA. August 04-09, 2019.
5. **Han Yang**, David B. McCallen, and Boris Jeremić. Energy dissipation in earthquake soil structure interaction modeling and simulation. *In Proceedings of the 11th U.S. National Conference on Earthquake Engineering (NCEE)*. Los Angeles, California, USA. June 25-29, 2018.
6. Yuan Feng, Sumeet Kumar Sinha, **Han Yang**, Hexiang Wang, David B McCallen, and Boris Jeremić. 3D nonlinear Earthquake Soil Structure Interactions (ESSI) for Nuclear Power Plants (NPP). *In Proceedings of the 11th U.S. National Conference on Earthquake Engineering (NCEE)*. Los Angeles, California, USA. June 25-29, 2018.
7. **Han Yang**, Yuan Feng, Sumeet Kumar Sinha, Hexiang Wang, and Boris Jeremić. Energy Dissipation in Soil Structure Interaction System. *In Proceedings of the 5th Geotechnical Earthquake Engineering and Soil Dynamics (GEESD)*. Austin, Texas, USA. June 10-13, 2018.
8. Boris Jeremić, Yuan Feng, **Han Yang**, Hexiang Wang, Dragan Kovačević, Arthur Rodgers, and David B McCallen. Interface between earthquake ground motions and structural response: numerical modeling and simulation of ESSI behavior. *In Proceedings of Best Practices in Physics-based Fault Rupture Models for Seismic Hazard Assessment of Nuclear Installations: Issues and Challenges towards Full Seismic Risk Analysis*. Cadarache Château, France. May 14-16, 2018.
9. **Han Yang**, Sumeet Kumar Sinha, Yuan Feng, and Boris Jeremić. Evaluation of Energy Dissipation in Elastic-Plastic Solids. *In Proceedings of the 15th International Conference of the International Association for Computer Methods and Advances in Geomechanics (IACMAG)*. Wuhan, China. October 19-23, 2017.
10. Sumeet Kumar Sinha, Yuan Feng, **Han Yang**, Hexiang Wang, and Boris Jeremić. 3-D nonlinear modeling and its effects in earthquake soil-structure interaction. *In Proceedings of the 24th Structural Mechanics in Reactor Technology (SMiRT) Conference*. Busan, Korea. August 20-25, 2017.
11. Hexiang Wang, **Han Yang**, Sumeet Kumar Sinha, Chao Luo, and Boris Jeremić. 3-D Non-Linear Earthquake Soil-Structure Interaction Modeling of Embedded Small Modular Reactor (SMR). *In*

Proceedings of the 24th Structural Mechanics in Reactor Technology (SMiRT) Conference. Busan, Korea. August 20-25, 2017.

12. Boris Jeremić, José Antonio Abell, Yuan Feng, Maxime Lacour, **Han Yang**, Fatemah Behbehani, Sumeet Kumar Sinha, Hexiang Wang, David B McCallen, and Chao Luo. Verification for the Real ESSI Simulator. *In Proceedings of the 24th Structural Mechanics in Reactor Technology (SMiRT) Conference*. Busan, Korea. August 20-25, 2017.

Technical Reports

1. **Han Yang**, Dragan Kovačević, and Boris Jeremić. Inelastic Reinforced Concrete Shear Wall Modeling. *Report to Organization for Economic Cooperation and Development (OECD) for Assessment of Structures Subject to Concrete Pathologies (ASCET) Project*. March 2018. (Not for public distribution).

Technical Presentations

1. **Han Yang** and Boris Jeremić. A Modern Energy-Based Design Framework for Earthquake Soil Structure Interaction. *UC Davis Geotechnical Graduate Student Society (GGSS) Round Table*. Davis, CA, USA. March 08, 2019.
2. **Han Yang** and Boris Jeremić. Modeling of Energy Dissipation in Soil Structure Interaction System. *The 11th U.S. National Conference on Earthquake Engineering (NCEE)*. Los Angeles, CA, USA. June 25-29, 2018.
3. **Han Yang** and Boris Jeremić. Modeling of Energy Dissipation in Soil Structure Interaction System. *The 5th Geotechnical Earthquake Engineering and Soil Dynamics (GEESD) Conference*. Austin, TX, USA. June 10-13, 2018.
4. **Han Yang**, Dragan Kovačević, and Boris Jeremić. Modeling of Inelastic Reinforced Concrete Shear Wall using MS ESSI Simulator. *Workshop on Assessment of Structures Subject to Concrete Pathologies (ASCET) Phase III*. Paris, France. April 16-17, 2018. (Not for public distribution).
5. **Han Yang**, Sumeet Kumar Sinha, Yuan Feng, and Boris Jeremić. Evaluation of Energy Dissipation in Elastic-Plastic Solids. *The 15th International Conference of the International Association for Computer Methods and Advances in Geomechanics (IACMAG)*. Wuhan, China. October 19-23, 2017.
6. **Han Yang** and Boris Jeremić. Modeling of Seismic Energy Dissipation in Elastic-Plastic Materials. *UC Davis Geotechnical Graduate Student Society (GGSS) Round Table*. Davis, CA, USA. March 10, 2017.

7. **Han Yang**. Real ESSI Simulator Implementation: Energy Dissipation in Earthquake Soil Structure Interaction. *Tsinghua University Graduate Student Seminar*. Beijing, China. December 30, 2016.
8. **Han Yang** and Boris Jeremić. Energy Dissipation in Earthquake Soil Structure Interaction. *American Geophysical Union (AGU) 2016 Fall Meeting*. San Francisco, CA, USA. December 16, 2016.

Dissertation and Thesis

1. **Han Yang**. Energy Dissipation Analysis Framework for Soil Structure Interaction. *PhD Dissertation*, University of California, Davis, CA, USA. August 2019.
2. **Han Yang**. Study on the meso-fabric development of granular materials based on DEM. *Bachelor's Thesis*, Tsinghua University, Beijing, China. June 2015.

Appendix A – Teaching Ratings and Comments

Official student evaluation files are attached in the next pages. Some highlights are:

- *Incredible TA. Challenged me with working through a problem, probing questions to help guide me in the right direction. Derivations were beautifully presented in lecture. Very attentive in office hours. Wonderful experience and any university will be privileged to have him teach and do research. Awesome guy, and very respectful!*
- *He has to be among one of the best TA's I have had at Davis so far. He didn't give us the answers to the questions, but rather guided us to how we should approach different kinds of questions. His lectures were also very organized—he prepared different types of examples that displayed what we should do in different cases, spoke audibly, and was willing to answer any questions we had without making us feel bad if we did not immediately get it.*
- *Han is one of the best TAs I've ever had! He is always prepared, organized, and knowledgeable, and handles questions clearly and effectively.*
- *Very clear examples and is great at showing students how to approach problems. Inspirational!*
- *Gave effective methods for approaching problems and help me to understand the material to a better degree. This man should be teaching the course. Excellent!!*
- *This TA could teach the class. He has a very good understanding of the tools and techniques that lead to student success. During lectures he presented materials clearly and in an organized manner. He even reviewed concepts from the beginning of the class and taught us more in a day than I had learned all quarter. Overall fantastic job!*
- *Han was a great TA and should seriously consider teaching.*
- *Han was great. Every time he taught class, I would actually be excited to come because I knew I would truly understand the material. He was easy to understand, answered questions very clearly and presented material that was organized.*
- *Very patient and kind TA. He prepare the lab lecture extremely clear and always willing to help us by answering our questions. One of the best TA ever.*
- *Very clear and thorough with the topic and presentation. Would recommend to teach any course.*
- *Both lectures that this TA substituted for were very good. He was very organized and was very charismatic. I think we ended up applauding him both times.*

Teaching Assistant Han Yang

Fall Quarter 2018
ENG 104 (001) 21689

Enrollment 150
% responding 56

UNIVERSITY OF CALIFORNIA - DAVIS

Student Evaluation of Teaching



	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		\bar{X}	SD	M	N
	5	%	4	%	3	%	2	%	1	%				
Please indicate the overall educational value of the course. (excellent very good satisfactory fair poor)	17	20%	16	19%	23	28%	13	16%	14	17%	3.1	1.4	3.0	83
Please indicate the overall teaching effectiveness of the teaching assistant. (excellent very good satisfactory fair poor)	42	60%	14	20%	12	17%	1	1%	1	1%	4.4	0.9	5.0	70
The TA was consistently prepared with well-organized lectures.	39	61%	18	28%	7	11%	0	0%	0	0%	4.5	0.7	5.0	64
The TA presented material clearly at an appropriate rate.	38	60%	16	25%	8	13%	1	2%	0	0%	4.4	0.8	5.0	63
The TA challenged students to do their best work.	35	56%	18	29%	9	15%	0	0%	0	0%	4.4	0.7	5.0	62
The TA answered questions clearly.	37	58%	17	27%	10	16%	0	0%	0	0%	4.4	0.7	5.0	64
The TA was accessible during stated office hours.	37	62%	18	30%	5	8%	0	0%	0	0%	4.5	0.6	5.0	60

Note any suggestions for improving the course (include comments on the amount of time required by the course/discussion/lab)

Way too much HW, Tests were impossible, and Teacher was not accessible sometimes (would be absent from office hours due to a conference) without any notice

I think the professor just needs to have more focused material because the homework does not translate well with the homework, the homework problems don't help with the midterm, while the lecture seemed to relate the the midterms the most. However, sometimes he doesn't finish teaching the material needed for the exam, and then proceeds to put the most difficult form of that topic on the midterm. I personally felt like I needed to rely on extra credit to pass the class, which I shouldn't be doing because the purpose of being in this class is to learn, not fill up notebooks with practice problems that aren't going to be on the test. They are practice, however, the midterms' level of difficulty is beyond the scope of the practice problems and homework. In addition, his lectures are difficult to follow because when he tries to draw diagrams, he won't erase and redraw, he simply draws over the diagram that he already had and makes the material difficult to understand. To improve the course, I think he should decrease the difficulty of the exams, make sure that the homework, lectures and midterms align, and make his lectures more neat.

Include a lab and discussion section. Force the instructor to use the canvas system, actually assign a book, and give us grades at some point before finals.

Nothing

The class should be more organized

Tests were tough so having the extra credit was nice.

Break down on how to complete a problem

During the lecture he doesn't take the time to go step by step so many students are lost. He also just uses the chalkboard and people can barely see. He moves too fast and doesn't make sure we all understand.

I liked a lot of the course material but some of it felt irrelevant to aerospace engineering. The professor put material on the exam that wasn't on the homework or in the textbook, which made exams more difficult. The professor always ended each section with an example problem which was nice.

Improve lecture by having a lesson plan and examples. Reward knowledge of material with exam problems like HW problems (not challenge problems) and in turn reduce busy work (e.g. notebooks).

The only thing that I can say about improvement is not due to the professor. Because of the smoke week, we as students lost an education. The reasoning is understandable, however missing out on that time means us as students missed out on an education that we paid for through our tuition. After all, what we pay for with tuition are the lectures we attend and the teaching from professors. Being that tuition is as expensive as it is there should have been a better solution to this, either extending the quarter by a week or compensation of our tuition.

Tests were ridiculously hard and no matter how hard I studied I did not do well. They did not reflect the material in the book

Get rid of Boris

I think this course had an okay amount of homework (roughly 5 to 6 homework problems a week) about each topic learned. But the things we do in class does not benefit our learning. The instructor goes intensely too fast, as in he would go over one thing quickly, skip to the next thing, and then go right back to the previous example. The material he writes on the board are always filled with mistakes. I understand that we are all human and humans make mistakes, but these mistakes affect our learning, especially of the wrong positive or negative sign or the wrong force is drawn and these little mistakes happen too often, almost everyday. I feel like he does not prepare us for the homework and did not guide us to success. The expectations of the instructor were way too high: I feel that he expected us to learn and know everything just after one hour of lecture. He should have introduced us to each topic and go over some simple examples before diving into harder examples. Instead, he just makes the material more difficult and confusing for me. I am scared to go to lecture every week because I get so anxious in his class. I never know what is going on in the class and it frustrates me so much that he does not see that the way he teaches does not benefit the students at all. The test averages were very low (midterm two averaged 5/20). I wish that he had a more organized teaching style that was less complicated.

please dont let him teach the class.....

We missed over a month's worth of lectures (professor was not there for 2 weeks, plus smoke break on top of this). Homework was often assigned before we covered the concepts on the homework. Midterms were completely unreasonable both in time and difficulty, and grading policies were both unclear and unfair. The instructor would make up lecture problems as he went along, and example problems were often filled with mistakes. Professor spoke in a negative manner regarding test scores, making comments such as "I give you easy problems, I don't know why you don't understand" when the class average was 6/20. This class should not have been my most stressful course, but it was. Jeremic is a good lecturer, and the class could easily be improved by him coming prepared to lecture & creating homework and midterms that are fair.

Nothing
Better professor.
This course should include a discussion section.
Have the review session for an exam before the exam instead of after it. Make clearer exams!!!
Lecture is focused primarily on, and does an excellent job with, concept and developing an understanding of the underlying theory. However, homework and exams are all based on much more complicated applications. When examples are done in class they are often disjointed and sloppy, often leading to more confusion for students. The homework and exams need to be kept to the level of lecture, or the level of the lecture must be brought to match the work given. Also, the amount of time required for the course far exceeds typical requirements. I personally spent 15-18+ hours per week outside of class on material, and I still should have done more. With exam averages of 45% and 30%, students have to rely on extra credit to save their grade. Extra credit truly is the saving grace of the course. Students are able to fill three 80 page notebooks with worked problems and do a programming assignment for extra credit. This drastically adds to the workload of a class that already has a very heavy workload. At the end of the class, students will have a very good understanding of the material. This would be a great class if students were able to dedicate all their time during a quarter to just this class, but unfortunately that is not the case.
The professor does not have structured lectures and often times expects us to learn the material from the textbook rather than in lecture.
Discussion is needed. TA office hours are not enough and always crowded.
there can be more outclass activities
Too large of time commitment. Problems take so long and requires more time which takes away from time for other courses.
Provide reading sections from a textbook
Lectures, examples and exam questions can be more related to each other.
Honestly the fault is in the way it's taught. Students had to rely on the TA's to understand material or teach themselves. I hope our professor sees our evaluations and really tries to come more prepared with his class lectures.
hire more TA's and have more office hours. the class is huge and we don't get enough discussion time. also, give us a real classroom. the lecture hall setting doesnt work
The amount of time needed outside this course is a lot. If you put in more time than needed you barely pass the midterms since you need a LOT of practice for this course.
A discussion section, as opposed to two hours of lecture twice a week, would be very helpful.
Don't assign two homeworks due on the same day. Don't put topics on test that haven't been covered in class. Don't put most material on test that was barely covered in the previous lecture as that doesn't give students adequate time to master the topic since students have other classes. Don't push everything up a week due to holidays. push it back a week (in terms of midterms). Use canvas to post students grades to make it easier on students and instructor not just for convenience of already having a website. Make tests more reasonable. Try to improve test averages if they are very low. Don't overcomplicate simple concepts.
Challenged me more than I could have imagined. The extra credit opportunities enabled me to practice more, in addition, to improve my programming skills. Cancellations req'd us to learn on our own, which is not a terrible thing. I think many of us try to rely on lectures only. The difficulty of this class made me learn how to be resourceful when school was canceled.
Note any teaching characteristics that you consider particular strengths or weaknesses of the TA.
Han was great. Every time he taught class, I would actually be excited to come because I knew I would truly understand the material. Personally, I would say that he should be the one teaching this class because I think the majority of students were very satisfied with the way he was teaching. He was easy to understand, answered questions very clearly and presented material that was organized.
Han was a great TA and should seriously consider teaching.
A good TA
Office hours are amazing. Goes over problem and helps material seem more understandable.
Han was an incredible Ta and should be teaching this class instead of Professor Jeremic. He presented material clearly. I learned more from his office hour sessions and when he subbed for Professor Jeremic more than when the Professor actually lectured. He did a great job
Good
Han is very passionate about teaching and teaches the students very well. His explanations benefit me so much, because he goes through every step and answers all the questions we have. The way he teaches is good because he starts from the very beginning and starts with the basics.
Nothing
A really good TA. He understood the material and was able to teach it in a clear manner. The two lectures Han took over were better than the professor's lecture. Han actually did examples of what we might see in HW and explained the step process. He was better at teaching than the professor which was shown when we asked him to explain an example the professor did in class. Han was able to explain it better in 20 minutes compared to the almost 2 hours of class the professor spent on it. Probably the best TA I have had so far.
Han Yang also presented to lectures for the class and did a great job. He blended both theory and worked examples into his lecture to help students understand both the concepts and their application.
This TA could teach the class. He has a very good understanding of the tools and techniques that lead to student success. During lectures he presented materials clearly and in an organized manner. He even reviewed concepts from the beginning of the class and taught us more in a day than I had learned all quarter. Overall fantastic job!
Han should teach the class, he's amazing.
Gave effective methods for approaching problems and help me to understand the material to a better degree. I feel that he taught me more in the quarter than anyone. This man should be teaching the course. Excellent!!
Excellent at explaining and simplifying concepts that students have troubles understanding during lectures. Always accessible during and even out of office hours.
Without Han I would've lost all hope in this class. He's kind and can relate to students much better than the professor, meaning he can explain the material and a much more applicable way to our understanding because he understands how we're processing the information.
very clear examples and is great at showing students how to approach problems. inspirational!
The TA also used the blackboard to cover materials of the class but he had prepared his own notes on how to solve problems in a clear, concise way which I found to be very helpful. He would also do practice problems using his methods that he stated in his notes that he wrote which made the solution easy to follow.
He has to be among one of the best TA's I have had at Davis so far, making topics we learned in class more understandable, often resolving examples that made us confused in lecture in a more straightforward way and in less than the two hours that the professor had to teach it to us. He didn't give us the answers to the questions, but rather guided us to how we should approach different kinds of questions. This helps prepare us for the exams. I learned more from going to his TA office hours than I did in the lectures as because he had TA'd the course many times, he knew what the students were going through and any questions we might have, unlike the professor who would skip steps and already expect us to know everything going into the calculation. He was very helpful and clear in his explanations. When he lectured in place of our professor (who was gone on a trip), his lectures were also very organized--he prepared different types of examples that displayed what we should do in different cases, spoke audibly, and was willing to answer any questions we had without making us feel bad if we did not immediately get it.
Han is one of the best TAs I've ever had! He is always prepared, organized, and knowledgeable, and handles questions clearly and effectively. It feels like I learned more from his one substitute lecture than I did from the rest of the class combined.
Thank you for having clear and organized lectures that were useful for tests.
Incredible TA. Challenged me with working through a problem, probing questions to help guide me in the right direction. Derivations were beautifully presented in lecture. Very attentive in office hours. Wonderful experience and any university will be privileged to have him teach and do research. He talked about projects that he was working on to help me understand what grad students do when not being harassed by us.:) Awesome guy, and very respectful!

Teaching Assistant Han Yang

Winter Quarter 2018
ENG 104L (003) 52952

Enrollment 9
% responding 66

UNIVERSITY OF CALIFORNIA - DAVIS

Student Evaluation of Teaching



	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		\bar{x}	SD	M	N
	5	%	4	%	3	%	2	%	1	%				
Please indicate the overall educational value of the course. (excellent very good satisfactory fair poor)	1	17%	3	50%	1	17%	1	17%	0	0%	3.7	0.9	4.0	6
Please indicate the overall teaching effectiveness of the teaching assistant. (excellent very good satisfactory fair poor)	6	100%	0	0%	0	0%	0	0%	0	0%	5.0	0.0	5.0	6
The TA was consistently prepared with well-organized lectures.	6	100%	0	0%	0	0%	0	0%	0	0%	5.0	0.0	5.0	6
The TA presented material clearly at an appropriate rate.	6	100%	0	0%	0	0%	0	0%	0	0%	5.0	0.0	5.0	6
The TA challenged students to do their best work.	5	83%	1	17%	0	0%	0	0%	0	0%	4.8	0.4	5.0	6
The TA answered questions clearly.	6	100%	0	0%	0	0%	0	0%	0	0%	5.0	0.0	5.0	6
The TA was accessible during stated office hours.	5	83%	1	17%	0	0%	0	0%	0	0%	4.8	0.4	5.0	6

Note any teaching characteristics that you consider particular strengths or weaknesses of the TA.

Very helpful

Han is considerate and flexible, yet still demanding with work. He strikes a good balance as a firm yet helpful TA, and is definitely a 'cool dude.'

Harsh grading when it comes to formatting. Should be more open to formatting if it means the same thing, but isn't in the same exact words.

Very patient and kind TA. He prepare the lab lecture extremely clear and always willing to help us by answering our questions. One of the best TA ever

Very clear and thorough with the topic and presentation. Would recommend to teach any course.

Teaching Assistant Han Yang

Winter Quarter 2017
ENG 035 (A01) 22674

Enrollment 28
% responding 50

UNIVERSITY OF CALIFORNIA - DAVIS

Student Evaluation of Teaching



	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	\bar{X}	SD	M	N
	5 %	4 %	3 %	2 %	1 %				
Please indicate the overall educational value of the course. (excellent very good satisfactory fair poor)	13 93%	1 7%	0 0%	0 0%	0 0%	4.9	0.3	5.0	14
Please indicate the overall teaching effectiveness of the teaching assistant. (excellent very good satisfactory fair poor)	8 57%	4 29%	2 14%	0 0%	0 0%	4.4	0.7	5.0	14
The TA was consistently prepared with well-organized lectures.	9 64%	4 29%	0 0%	1 7%	0 0%	4.5	0.8	5.0	14
The TA presented material clearly at an appropriate rate.	10 71%	3 21%	0 0%	1 7%	0 0%	4.6	0.8	5.0	14
The TA challenged students to do their best work.	11 79%	2 14%	1 7%	0 0%	0 0%	4.7	0.6	5.0	14
The TA answered questions clearly.	9 64%	4 29%	0 0%	1 7%	0 0%	4.5	0.8	5.0	14
The TA was accessible during stated office hours.	6 60%	3 30%	0 0%	1 10%	0 0%	4.4	0.9	5.0	10

Note any suggestions for improving the course (include comments on the amount of time required by the course/discussion/lab)

The lectures felt a little long but helpful overall, mainly because of the early morning classes.

Bigger handwriting

Note any teaching characteristics that you consider particular strengths or weaknesses of the TA.

He would assist with the homework and give his input when asked questions, which were extremely helpful.

Very clear

Teaching Assistant Han Yang

Fall Quarter 2016
ENG 104 (001) 32314

Enrollment 125
% responding 61

UNIVERSITY OF CALIFORNIA - DAVIS

Student Evaluation of Teaching



	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		\bar{X}	SD	M	N
	5	%	4	%	3	%	2	%	1	%				
Please indicate the overall educational value of the course. (excellent very good satisfactory fair poor)	19	25%	24	31%	26	34%	3	4%	5	6%	3.6	1.1	4.0	77
Please indicate the overall teaching effectiveness of the teaching assistant. (excellent very good satisfactory fair poor)	39	52%	25	33%	11	15%	0	0%	0	0%	4.4	0.7	5.0	75
The TA was consistently prepared with well-organized lectures.	43	61%	22	31%	5	7%	0	0%	0	0%	4.5	0.6	5.0	70
The TA presented material clearly at an appropriate rate.	40	58%	24	35%	5	7%	0	0%	0	0%	4.5	0.6	5.0	69
The TA challenged students to do their best work.	31	46%	28	42%	8	12%	0	0%	0	0%	4.3	0.7	4.0	67
The TA answered questions clearly.	40	56%	25	35%	6	8%	0	0%	0	0%	4.5	0.6	5.0	71
The TA was accessible during stated office hours.	37	57%	20	31%	7	11%	1	2%	0	0%	4.4	0.7	5.0	65

Note any suggestions for improving the course (include comments on the amount of time required by the course/discussion/lab)

This course required over 25 hours per week outside of class. Midterms are designed so that the average score is 50%.

None

The lectures are hard to relate to the homework which were also difficult to relate to exams. I spent an extraordinary amount of time on homework for this class, and it would be helpful to have some easier questions that help solidify concepts before starting in on challenging questions.

Would be helpful if the homework stated which sections of the book or lecture material that the hw problems would be on.

Grading system should be easier for students

-it would be helpful if there were weekly review sessions

Some assignments were way longer than others, grading should be more methods and work than final numerical Answers

This class takes a lot of studying but I would imagine that's how it has to be. The grading system is strange, with more points available than are graded, but it works. Also I think the majority of the class failed at least one midterm so perhaps there's something to be done about that.

The amount of time required to complete the homework was pretty unreasonable. Lectures were awesome and engaging although sometimes we lingered on elementary topics for too long.

BETTER PROFESSOR

its cool

Have hw's more consistent (same # of problems) to make time devoted to class the same every week.

Make it clear how the lecture relates to the text by giving a lecture outline at the beginning of each class with the corresponding book sections.

Homework assignments were very time consuming and students were often having to go to office hours to figure it out. Make assignments simpler

The lectures are sort of all over the place, concepts seem to be unorganized and not written down.

Perhaps a discussion section would be helpful to go over problems that would be similar on homework and exams.

Be more clear. Way too much homework. Exams unreasonable.

I felt the grading could have been more fair on the midterms and that practice exams would have been nice since the midterms tested your knowledge in a different way than the homework did. The first and last homework assignments were also of unreasonable length, but the middle ones were fair. I felt the professor had an unrealistic expectation for how much time the students could devote to his class alone. I know a lot of people that have low grades in the class and though he gave us ample extra credit opportunities, we were expected to do 50 extra practice problems to get full points. This is in addition to the 10-15 hours of homework each week plus 4 hours of lecture, not to mention our other course work. For students like myself who have to work 14-20 hours a week to afford rent and food there just simply isn't enough time in the day.

The amount of homework varied widely. Sometimes there was no homework, sometimes there was a normal amount, and twice there was an overload. Please don't ever assign 20 problems over Thanksgiving break again. Also, please can there be something that posts grades? I am not able to make it to most office hours, so the first time I had any idea of my scores was on the day of the second midterm, and I still don't know how my scores stack up in the class. Going in to finals not knowing if I have a D or a B makes me a little nervous. I liked the lecture style, and I really appreciated all of the example problems in class. Professor is very easy to approach with questions.

the homework is way to involved

Note any teaching characteristics that you consider particular strengths or weaknesses of the TA.

Very helpful

Very helpful. I was surprised at how much information he was able to present during lectures and how well he was able to communicate concepts.

There were too many times that I showed up to office hours and the TAs were either not there or were late. It would be very appreciated if students were notified before emails were sent that office hours would be canceled.

Han - your lectures were great! I got more out of your lectures than the professor's. Thanks for all of your help!

Does a good job explaining concepts and working with students to make sure they understand.

Strengths are knowledge of the material and ability to understand the student.

Both lectures that this TA substituted for were very good. He was very organized and was very charismatic. I think we ended up applauding him both times.

very approachable, very knowledgeable

Han was great! He was so helpful in explaining concepts that the professor did not explain well. He made sure that we knew what we had to know.

When the TA held one of the lectures, it was easy to comprehend and follow. He would review what was gone over the previous lecture and also the basics so that we would understand what was being taught.

Yang Han is an excellent TA. I struggled with lecture and he was always helpme in office hour. I almost went to all of his office hour. He presented the material clearly and I enjoyed his teaching a lot!

Connects with students and answers questions well. Good TA

Han was amazing! He was super helpful at office hours, answered complicated questions very clearly, he always knew what he was talking about, and he was always asking students how he could improve. Honestly, he's probably the reason I'm passing the class right now. I go to his office hours every week.
