

Spring, 2022

# ME 597 – Solid Mechanics II

## Lecture 18

### Guidelines for special project

KEEP A MASK WITH  
YOU AT ALL TIMES



**PROTECT  
PURDUE**



Mechanical Engineering

Instructor: Prof. Marcial Gonzalez


Last modified: 4/23/22 12:46:14 PM

# Guidelines for special project

## Exams:

- One in-class midterm exam, March 31st, closed book, closed notes.  
Room: MSEE B012 Time: 8-10PM
- No final exam.

## Project:

- Research oriented.
- You will be evaluated based on your weekly progress, a final presentation and a final written report.
- Details will be given during the semester. 

## Grading:

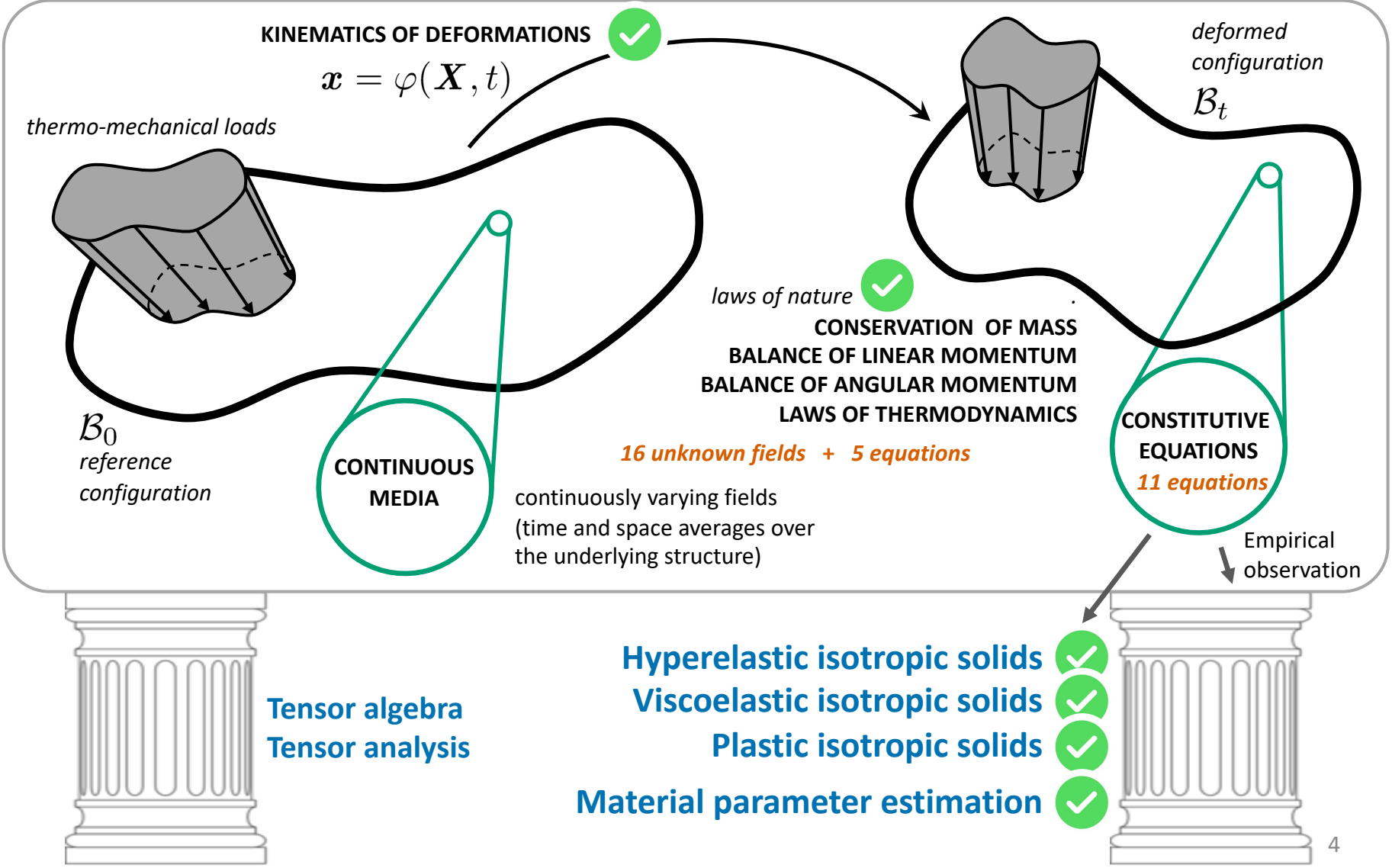
- Homework (30%), midterm exam (40%), final project (30%)  
Note: 5 HWs, 6 pts. each.
- Grades are not curved.

# Guidelines for special project

## Schedule for the rest of the semester

03/22 (18) Guidelines for special project	03/24 (19) Midterm Prep		Monday 3/28 HW4 due
03/29 (20) Structural elements   Beams, plates, shells	03/31 EXAM    Time/Room: 8-10PM / MSEE B012		
04/05 Project progress report #1a (presentation)	04/07 Project progress report #1b (presentation)		Project progress report via WebEx
04/12 Project progress report #1c (presentation)	04/14 (21) Structural elements   Beams, plates, shells		HW5 posted
04/19 Project progress report #2a (presentation)	04/21 Project progress report #2b (presentation)		Project progress report via WebEx
04/26 Project progress report #2c (presentation)	04/28 (22) Fluid-solid interactions		HW5 due
Week of 05/02 Time (TBD): Final project report and video submission.			

# Guidelines for special project



# Guidelines for special project

## Special project:

- GOAL: Demonstrate that you've learnt to read and understand state-of-the-art **solid mechanics** literature!
- Closely related to your research (or not!)
- Examples:
  1. Choose one seminal paper, understand its details, be able to explain it in your own words, include a summary in your final report together with a literature review that explores the impact of this work
  2. Choose one paper closely related to your research, understand its details, be able to explain it in your own words, include a summary in your final report together with an assessment of its impact on your own research
  3. Choose one paper that relaxes one of the basic hypothesis discussed in class, understand its details, be able to explain it in your own words, include a summary in your final report together with a literature review that explores the area of application of this work

# Guidelines for special project

## Weekly progress report:

- Two 9-minute in-class updates.
- Two 9-minute WebEx updates (*to be scheduled based on mutual availability*).
- Prepare two slides (send them to me the night before class)
- Present your recent progress (5 minutes)
- Present your goals for next report (1 minutes)
- Q&A and feedback (3 minutes)
- Goals of the revision and feedback:
  - Reinforce connection between fundamental topics covered in class and the specifics of your topic/application
  - Identify aspects that MUST be explored, addressed, or improved
- Grading: 10% of final grade (33% of project grade)

# Guidelines for special project

---

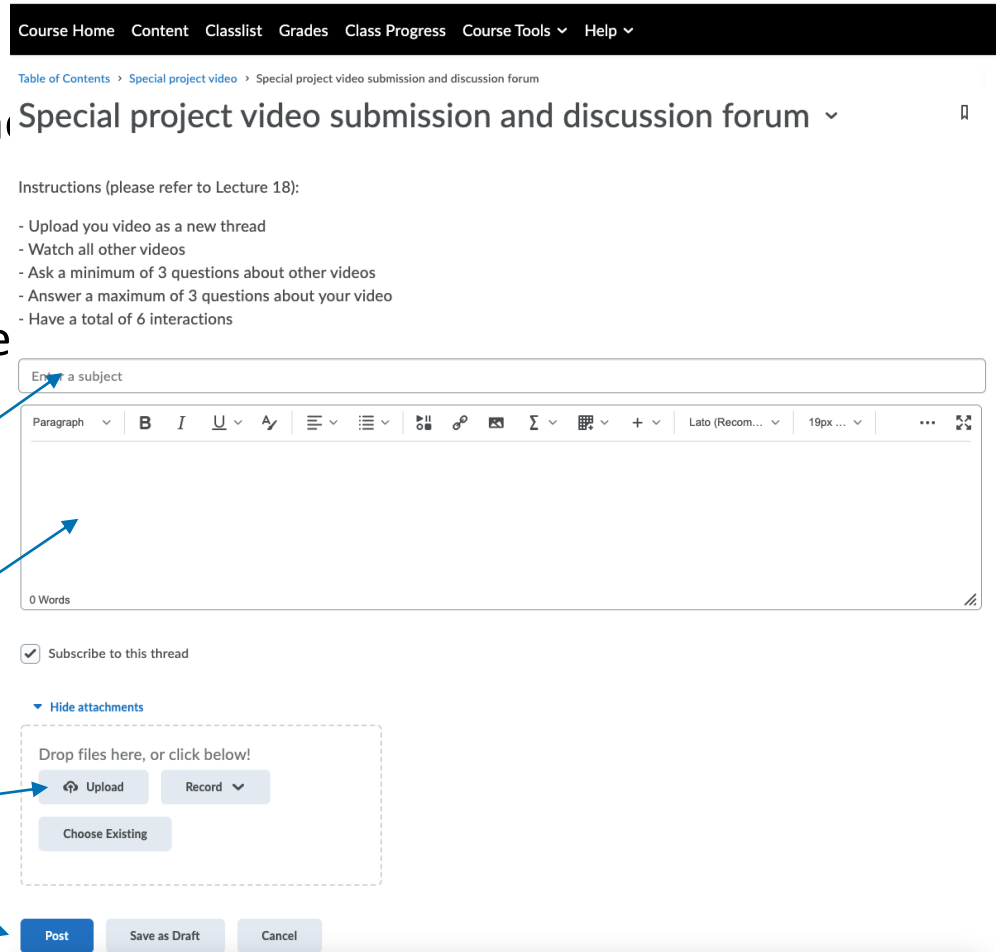
## Final video:

- Before Wednesday May 4<sup>th</sup> at noon
- 10 minutes to deliver your presentation (upload to Brightspace)
- Rewrite equations using the notation and nomenclature adopted in the class
- Grading: 10% of final grade (33% of project grade)

# Guidelines for special project

## Final video:

- Before Wednesday May 4<sup>th</sup> at noon
- 10 minutes to deliver your
- Rewrite equations using the
- the class
- Grading: 10% of final grade





# Guidelines for special project

---

## Final report:

- Monday May 2<sup>nd</sup> at noon
- Technical report in LaTeX, maximum of 4 pages (upload to Gradescope)
- Rewrite equations using the notation and nomenclature adopted in the class
- Grading: 5% of final grade (17% of project grade)

# Guidelines for special project

---

## Peer learning:

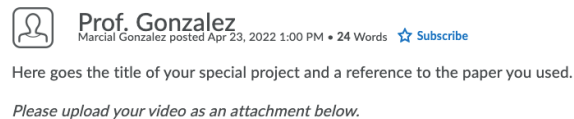
- Friday May 6<sup>th</sup> at noon
- On Brightspace:
  - Watch all other videos on Brightspace
  - Ask a minimum of 3 questions about other videos
  - Answer a maximum of 3 questions about your video
  - Have a total of 6 interactions
- Grading: 5% of final grade (17% of project grade)

# Guidelines for special project

## Peer learning:

- Friday May 6<sup>th</sup> at noon
- On Brightspace:
  - Watch all other videos on Brightspace
  - Ask a minimum of 3 questions about other videos
  - Answer a maximum of 3 questions about your video
  - Have a total of 6 interactions

- Grading: 5% of final grade



Prof. Gonzalez  
Marcial Gonzalez posted Apr 23, 2022 1:00 PM • 24 Words [Subscribe](#)

Here goes the title of your special project and a reference to the paper you used.

*Please upload your video as an attachment below.*

Reply to Thread

Filter by: All Posts

Show: Threaded

There are no replies in this thread

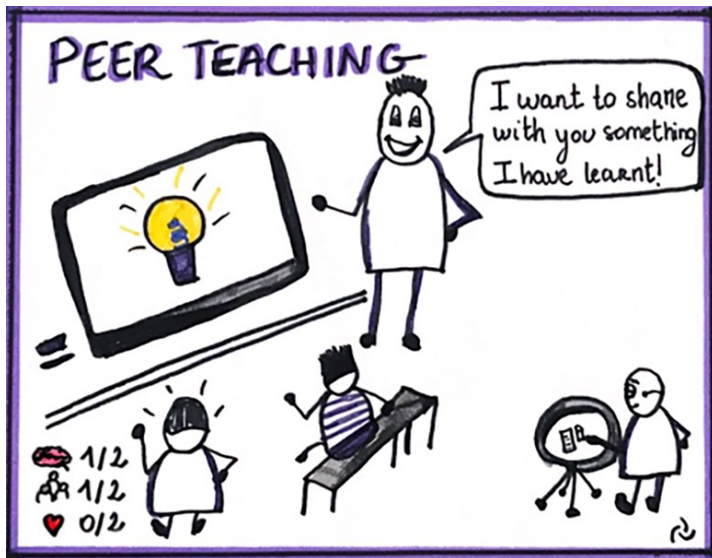
ask/answer  
questions

Reply to Thread

# Guidelines for special project

## Peer learning overarching goals:

- Peer teaching (e.g., promotes learner autonomy and agency; forces learner to research, structure and communicate findings)
- Peer discussion (e.g., active processing of concepts; refinement of understanding to communicate it; internal dialogue that leads to deeper and autonomous learning)
- Peer coaching & peer collaboration



# Schedule for the rest of the semester

	Week		Week		Week		Week		Week of 05/02	
	04/04 - 04/08		04/11 - 04/15		04/18 - 04/22		04/25 - 04/29		Week of 05/02	
Name	Tuesday: #1a	Thursday: #1b	Tuesday: #1c	Thursday (L21)	Tuesday: #1a	Thursday: #1b	Tuesday: #1c	Thursday (L22)	Video 05/04	Report 05/02
Abhi Ramkumar	<b>Session (A)</b> 9-min in-class		<b>Session (B)</b> 9-min Webex (Monday or Tuesday)		<b>Session (C)</b> 9-min in-class	<b>Session (D)</b> 9-min Webex (Thursday or Friday)			10-min video	4-page report
Anirudh Madhvacharyula										
Caleb Overstreet										
Clark Addis										
Diane Patterson										
Elizabeth Thompson										
Glynn Gallaway										
Harshith Kumar Adepu	<b>Session (A)</b> 9-min in-class		<b>Session (B)</b> 9-min Webex (Thursday or Friday)		<b>Session (C)</b> 9-min in-class	<b>Session (D)</b> 9-min Webex (Monday or Tuesday)			10-min video	4-page report
Jacques Barsimantov Mandel										
Katie Riley										
Madison Perrin										
Mario De Lucio Alonso										
Muhammad Shahin										
Omar Moreno-Flores										
Sameer Kamath			<b>Session (A)</b> 9-min in-class		<b>Session (B)</b> 9-min Webex (Monday or Tuesday)	<b>Session (C)</b> 9-min in-class	<b>Session (D)</b> 9-min Webex (Thursday or Friday)		10-min video	4-page report
Sourav Das										
Sthavishta Bhopalam Rajakumar										
Suriyan Anandavel										
Tanner Ballance										
Vahidullah Tac										
Zachary Harbin										

## Example 1:

- (A) Choose one seminal paper (*consider bringing more than one option*),
- (B+C) understand its details, be able to explain it in your own words, include a summary in your final report together with
- (D) a literature review that explores the impact of this work

# Schedule for the rest of the semester

	Week		Week		Week		Week		Week of 05/02	
	04/04 - 04/08		04/11 - 04/15		04/18 - 04/22		04/25 - 04/29		Week of 05/02	
Name	Tuesday: #1a	Thursday: #1b	Tuesday: #1c	Thursday (L21)	Tuesday: #1a	Thursday: #1b	Tuesday: #1c	Thursday (L22)	Video 05/04	Report 05/02
Abhi Ramkumar	<b>Session (A)</b> 9-min in-class		<b>Session (B)</b> 9-min Webex (Monday or Tuesday)		<b>Session (C)</b> 9-min in-class	<b>Session (D)</b> 9-min Webex (Thursday or Friday)			10-min video	4-page report
Anirudh Madhvacharyula										
Caleb Overstreet										
Clark Addis										
Diane Patterson										
Elizabeth Thompson										
Glynn Gallaway										
Harshith Kumar Adepu	<b>Session (A)</b> 9-min in-class		<b>Session (B)</b> 9-min Webex (Thursday or Friday)		<b>Session (C)</b> 9-min in-class	<b>Session (D)</b> 9-min Webex (Monday or Tuesday)			10-min video	4-page report
Jacques Barsimantov Mandel										
Katie Riley										
Madison Perrin										
Mario De Lucio Alonso										
Muhammad Shahin										
Omar Moreno-Flores										
Sameer Kamath			<b>Session (A)</b> 9-min in-class		<b>Session (B)</b> 9-min Webex (Monday or Tuesday)	<b>Session (C)</b> 9-min in-class	<b>Session (D)</b> 9-min Webex (Thursday or Friday)		10-min video	4-page report
Sourav Das										
Sthavishta Bhopalam Rajakumar										
Suriyan Anandavel										
Tanner Ballance										
Vahidullah Tac										
Zachary Harbin										

## Example 2:

- (A) Choose one paper closely related to your research (*idem*),
- (B+C) understand its details, be able to explain it in your own words, include a summary in your final report together with
- (D) an assessment of its impact on your own research

# Schedule for the rest of the semester

	Week		Week		Week		Week		Week of 05/02	
	04/04 - 04/08		04/11 - 04/15		04/18 - 04/22		04/25 - 04/29		Week of 05/02	
Name	Tuesday: #1a	Thursday: #1b	Tuesday: #1c	Thursday (L21)	Tuesday: #1a	Thursday: #1b	Tuesday: #1c	Thursday (L22)	Video 05/04	Report 05/02
Abhi Ramkumar	<b>Session (A)</b> 9-min in-class		<b>Session (B)</b> 9-min Webex (Monday or Tuesday)		<b>Session (C)</b> 9-min in-class	<b>Session (D)</b> 9-min Webex (Thursday or Friday)			10-min video	4-page report
Anirudh Madhvacharyula										
Caleb Overstreet										
Clark Addis										
Diane Patterson										
Elizabeth Thompson										
Glynn Gallaway										
Harshith Kumar Adepu	<b>Session (A)</b> 9-min in-class		<b>Session (B)</b> 9-min Webex (Thursday or Friday)		<b>Session (C)</b> 9-min in-class	<b>Session (D)</b> 9-min Webex (Monday or Tuesday)		10-min video	4-page report	
Jacques Barsimantov Mandel										
Katie Riley										
Madison Perrin										
Mario De Lucio Alonso										
Muhammad Shahin										
Omar Moreno-Flores										
Sameer Kamath	<b>Session (A)</b> 9-min in-class		<b>Session (B)</b> 9-min Webex (Monday or Tuesday)		<b>Session (C)</b> 9-min in-class	<b>Session (D)</b> 9-min Webex (Thursday or Friday)		10-min video	4-page report	
Sourav Das										
Sthavishta Bhopalam Rajakumar										
Suriyan Anandavel										
Tanner Ballance										
Vahidullah Tac										
Zachary Harbin										

## Example 3:

- (A) Choose one paper that relaxes one of the basic hypothesis discussed in class (*idem*),
- (B+C) understand its details, be able to explain it in your own words, include a summary in your final report together with
- (D) a literature review that explores the area of application of this work

# Schedule for the rest of the semester

## Question: how do I schedule my WebEx presentation?

- You will receive an email with a [link](https://ttsu.me/umhmga) (ttsu.me/umhmga) to schedule two 10-minute WebEx sessions
- You are responsible to understanding when you are expected to present.
- Follow closely the instructions in the previous slides.

	Monday	Tuesday	Thursday	Friday
Week 04/11-04/15	5-6PM: 6 slots	5:30-6:30PM: 6 slots	5:30-6PM: 3 slots	3-4:30PM: 9 slots
Week 04/18-04/22	5-6PM: 6 slots	4-5PM: 6 slots	5:30-6PM: 3 slots	3-4:30PM: 9 slots
Week 04/25-04/29	5-6PM: 6 slots	4-5PM: 6 slots	5:30-6PM: 3 slots	3-4:30PM: 9 slots

*12 slots for 7 students*

*12 slots for 7 students*



# Guidelines for special project

---

Any questions?