

TAM 251: Introductory Solid Mechanics - Spring 2013

Dr. Mariana Silva

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Office: MEB 154

Lectures: MWF, 9AM (AL1) and 10AM (AL2), 100 MSEB

Discussion sections

AD1, M 12:00-12:50PM, 260 MEB

AD2, M 5:00-5:50PM, 218 MEB

AD3, T 9:00-9:50AM, 256 MEB

AD4, T 12:00-12:50PM, 260 MEB

AD5, T 12:00-12:50PM, 218 MEB

AD6, W 12:00-12:50PM, 253 MEB

AD7, W 5:00-5:50PM, 253 MEB

AD8, R 9:00-9:50AM, 256 MEB

AD9, R 11:00-11:50AM, 163 EVRT

ADA, R 12:00-12:50PM, 256 MEB

ADB, R 5:00-5:50PM, 260 MEB

ADC, M 5:00-5:50PM, 243 MEB

Head teaching assistants

Joel Krehbiel, jkrehbi2@illinois.edu

Ankit Saharan, saharan1@illinois.edu (AD6, AD7)

Teaching assistants

Daniel Koehler, koehler5@illinois.edu (AD1, AD3, AD4)

Harpreet Sangha, hsangha2@illinois.edu (AD8, ADB, ADC)

Sangwoo Kim, skim376@illinois.edu (AD5, AD9)

Ouli Jin, oulijin2@illinois.edu (AD2)

Woowon Lee, wlee74@illinois.edu (ADA)

Special accommodations

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact their lecturer and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES you may visit 1207 S. Oak St., Champaign, call 333-4603 (V/TDD), or e-mail a message to disability@uiuc.edu.

Compass 2g

Your grades, class notes and general announcements will be posted on Compass 2g (<https://compass2g.illinois.edu>).

i>clicker

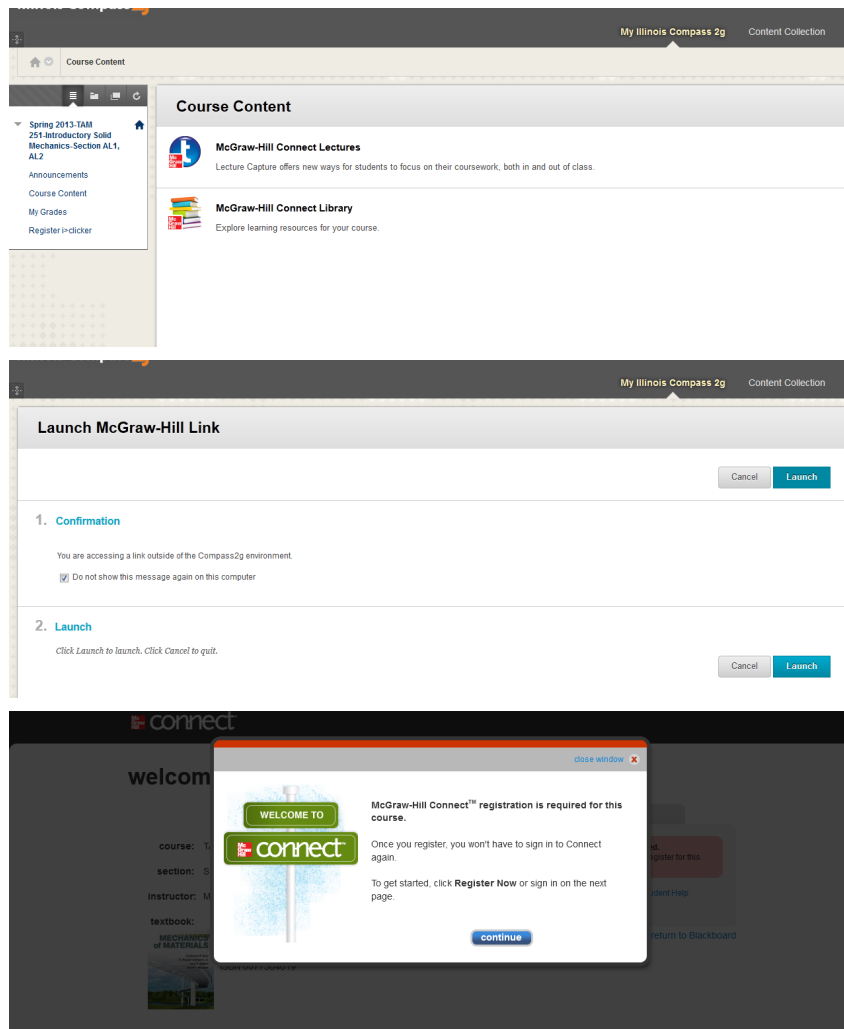
Quizzes will be administered in lectures and discussion sections via the i>clicker system. The i>clicker remote may be purchased at any of the book stores and must be registered on Compass 2g, under the tab “Register i>clicker”. **You need to register your i>clicker by February 15th.** The i>clicker roster will be synced for the **last time** on February 16th.

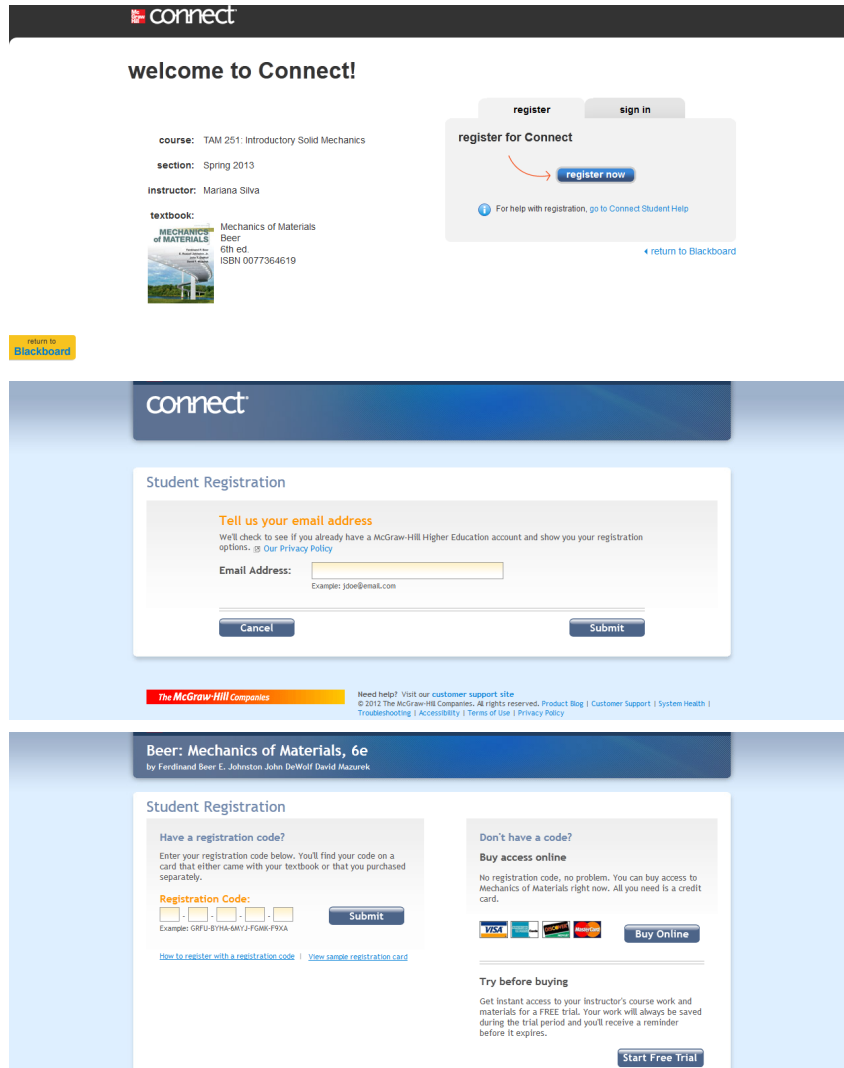
Suggested textbook

Custom version (loose-leaf, three-hole punched, B&W) of “*Mechanics of Materials*” by Beer, Johnston, DeWolf and Mazurek, McGraw-Hill, **ISBN: 069781408-4**. Available at UofI Bookstore for \$100.00. This price includes the *Connect Plus* access code, which is required to complete your homework assignments (see section “Required online tool”). The custom textbook has the same material as the original *Mechanics of Materials* by Beer, Johnston, DeWolf and Mazurek, 6th edition, except for Chapter 11, that has been removed.

Required online tool - McGraw-Hill Connect

From Compass 2g, you will be able to access the McGraw-Hill Connect website, which contains your online homework assignments and lecture materials. Please follow the following steps to get access to Connect:





1. Go to Compass 2g. Under the tab “Course Content”, click “McGraw-Hill Connect Library”
2. Mark the box “Do not show this message again on this computer” and click “Launch”
3. Click “Continue”. You are now on the Connect web page. Click “Register now”.
4. Enter your email address and click “Submit”
5. In order to start using Connect, choose ONE of the options below:
 - “Have a registration code?”
This is going to be your option if you choose to purchase the custom textbook (\$100.00) at the bookstore. The custom textbook includes the *Connect Plus* registration code. Insert your registration code in the space provided and click “Submit”. Note that *Connect Plus* allows access to the original (colored) textbook via the online ebook until the end of the semester (you may print the ebook, however you are not able to save a copy of it).
 - “Don’t have a code?”
This is going to be your option if you don’t buy the custom book from the bookstore. Click “Buy Online” and choose either “Buy Connect Plus” or “Buy Connect”.
 - *Connect Plus* (\$95.00): adds access to entire textbook via online ebook.



- *Connect* (\$39.99): does not give you access to the online ebook. However, this might be a good option if you are planning to borrow the textbook or if you prefer not to have the textbook at all (the textbook is NOT required)
6. Once you are registered, you can start accessing Connect from Compass 2g without having to sign in to Connect again. You can go back to Compass 2g by clicking the yellow button “Return to Blackboard” on the left side of your screen.

General guidelines

Lectures:

- Read the assigned material from the text.
- Expect an i>clicker quiz during your lecture.
- The lectures will be delivered on a Tablet-PC. Lectures are recorded and uploaded on Connect for your future reference. Click on the “Library” tab and then click on “my lectures”.
- Lecture notes and discussion problems are uploaded on Compass 2g.

Discussion sections:

- Discussion sections will begin on Monday, January 14th.
- Discussion sections conducted by TAs are held weekly to solve problems similar to your homework and to answer any questions about particular problems that you have.
- Expect an i>clicker quiz during your discussion section.
- Your written homework assignments should be submitted and returned in your discussion sections.
- If you attend discussion sections AD1, AD2 or ADC (i.e., Monday discussions), you should go to a different discussion on the week of January 21st. In any other week of the semester, you MUST attend the discussion section in which you are registered. You will be penalized by %50 if you submit your assignment in the wrong discussion section.
- Do not ask the TAs to work the homework problems before they are due.
- Do not ask the TAs to work the problems done in lecture, however you may ask specific questions, e.g. How did you go from step b to c?

Study Hall:

- A Study Hall in 429 Grainger Library is provided to answer questions you may have.
- The Study Hall will begin on Wednesday, January 23rd. It will be staffed by the TAs and myself during the time slots indicated below:

Time	Wednesday	Thursday	Friday
11 - 12am		Ankit	Silva
12 - 1pm		Ankit	Silva
1 - 2pm	Woowon	Sangwoo	Daniel
2 - 3pm	Woowon	Sangwoo	Daniel
3 - 4pm	Daniel	Ouli	Sangwoo
4 - 5pm	Daniel	Ouli	Sangwoo
5 - 6pm			Sangwoo
6 - 7pm	Ankit	Harpreet	Harpreet
7 - 8pm		Harpreet	Harpreet

- Study Hall is intended to supplement the lectures and discussion sections.
- Do not ask the staff to work the homework problems before they are due. It is OK to ask them specific questions on the details of your attempted solutions or to work out problems that are similar to the homework problems.

Course grades and policies

97 - 100	A+	92 - 97	A	89 - 92	A-
86 - 89	B+	82 - 86	B	79 - 82	B-
76 - 79	C+	72 - 76	C	69 - 72	C-
66 - 69	D+	59 - 66	D	55 - 59	D-
		0 - 55	F		

Online homework assignment (10%):

1. You will find your online homework assignments on Compass 2g. Once you click on the corresponding link for your online HW, you will be redirected to the Connect web site.
2. Online homework assignments will be due on **Fridays at 11:59 pm**. Your assignment is AUTOMATICALLY submitted "AS IS" on the due date. LATE ONLINE ASSIGNMENTS ARE NOT ACCEPTED.
3. You will receive a grade for ALL assigned online homework problems. Your HW score will appear on the Compass 2g grade book.
4. To encourage you to work through the problems and to obtain the correct solution you may revise and resubmit your solutions numerous times until the due date.
5. The online homework problems give explicit values and units to the relevant lengths, material properties, forces, et cetera, and therefore you should give your final answer with an explicit numerical value. Nevertheless, when solving a homework problem you should (to the utmost extent possible) assign symbols to all the relevant lengths, forces, material properties, et cetera, and then solve the problem symbolically. As a last step, you should substitute the value and units of each of the symbols in the symbolic formula. You are encouraged to solve all six problems symbolically. However, each week you will be asked to submit one of them (refer to section "Written homework assignment").
6. You are encouraged to print out each homework problem and derive your symbolic solution on this print out. Store these solutions for your future reference.

7. If you are not able to see symbols and/or numbers correctly on Connect (graphical problems), please go to the bottom of the Connect webpage and click "Troubleshooting". You might need to install some plug-ins to have your browser properly working with Connect.
8. If you believe you solved an online problem correctly but Connect does not accept the answer, you should come to office hours with your symbolic solution. We will be able to check your work better if you have that in hand.
9. If you are not able to solve the issue during office hours, you may also use the online forum on Piazza (<https://piazza.com/illinois/spring2013/tam251/home>). Ankit Saharan will be monitoring questions on Piazza on Wednesdays 4-5pm and Thursdays 1-3pm.
10. If the above two options fail, please contact Ankit Saharan via email.
11. Solutions will not be posted.
12. The first online homework is due on Jan 25th.
13. Your lowest online homework score will be dropped. *This drop should be reserved for unexpected occurrences such as sickness or a family emergency.*

Written homework assignment (10%):

1. To teach you how to prepare your analyzes in a logical manner, you will be asked to submit ONE written solution from your online homework assignment each week. In this way, the TAs who grade your exams will be able to critique your work before the examinations.
2. You will find the instructions (which problem you need to solve) for your written assignment on Compass 2g.
3. When solving your written homework assignment, you MUST assign symbols (to the utmost extent possible) to all the relevant lengths, forces, material properties, et cetera, and then solve the problem symbolically. You can assign numbers to your final result, in case you want to check your answer. Depending on the difficulty of the problem, you may assign numbers at intermediate steps. You will be penalized by 30% if you refuse to solve your written assignment symbolically.
4. This symbolic form of working out the problems will be used by the teaching assistants in the discussion sections, by me in the lectures and by yourselves in the exams. *In the exams, I seldom give explicit values and units to the relevant quantities, and you will have to solve the exam problems using symbols!*
5. These written homework assignments will be collected weekly at the beginning of your discussion section. You MUST attend the discussion section in which you are registered. If you submit your written assignment in the wrong discussion, you will be penalized by 50%!
6. Late homework will not be accepted.
7. Your name, lecture section and discussion section numbers must be printed in pen (legibly) on the top of each page. Staple your problem-set solutions together in the upper left corner. Your work must be arranged neatly so that it is easily read by the TAs. You will be penalized by 20% if you don't present your work in an organized/neat way.
8. The first written homework is due the first week of class; it will be completed during your discussion section and will contain questions regarding this syllabus.
9. Your lowest written homework score will be dropped. *This drop should be reserved for unexpected occurrences such as sickness or a family emergency.*

Lectures (3%):

1. Quizzes will be administered via the i>clicker system.
2. 1.5% for attendance + 1.5% for correct answer
3. Your three lowest scores will be dropped. *These drops should be reserved for unexpected occurrences such as sickness or a family emergency.*

Discussion sections (2%):

1. Quizzes will be administered via the i>clicker system.
2. 1% for attendance + 1% for correct answer
3. Your lowest quiz score will be dropped. *This drop should be reserved for unexpected occurrences such as sickness or a family emergency.*

Midterms (45%):

1. 2 hours exam, “closed book” and “closed notes”.
2. A formula sheet will be provided at the exam.
3. Your name and discussion section number must appear on the top of EACH page of the exam.
4. Midterm 1: Tuesday, Feb 26th, 7:00PM-9PM, Location: see table below
5. Midterm 2: Tuesday, April 2nd, 7:00PM-9PM, Location: see table below
6. Report to the room indicated in the table below that is next to your TA’s name (the one that teaches the discussion section you are REGISTERED in!). You are not going to be allowed to take the exam in the wrong classroom. Bring your ID to the exam and show up early so you have time to sign in.

TA	Midterm 1	Midterm 2
Ouli	TB 112	TB 112
Woowon	TB 114	TB 114
Ankit	CA 112	CA 112
Sangwoo	LMS 151	RAL 116
Daniel	EVRT 151	EVRT 151
Harpreet	MSEB 100	MSEB 100

7. Conflict exams will be scheduled for students with legitimate (documented) scheduled conflicts. These are usually on the same evening but earlier than the regular exam. Actual times will be announced in lecture.

Final exam (30 %):

1. 3 hours exam, “closed book” and “closed notes”.
2. A formula sheet will be provided at the exam.
3. Your name and discussion section label must appear on the top of EACH page of the exam.
4. Make-up exams will only be allowed with a major documented excuse.
5. AL1: May 6th, 8AM-11AM, location TBA
6. AL2: May 8th, 8AM-11AM, location TBA

Extra online homework problems:

1. You will have the option to solve extra online problems every week (about 40-50 extra problems during the entire semester).
2. Each problem is worth 0.1% extra credit, that will be added to your final grade.

Grading generalities:

1. Questions about your grades must be made within the week after the quiz, exam or HW is returned. Discuss the issue with the TA who graded the problem in question and if a resolution cannot be made, then see Ankit Saharan.
2. Questions about missing quiz/exam/HW grades must be addressed to Joel Krehbiel within the week after the quiz/exam/HW was returned to your class-mates. Make sure to routinely check your grades on compass.

Absences and excused grades:

1. Excuses from homework, quizzes and exams will be given only in one of the following circumstances:
 - (a) illness;
 - (b) personal crisis (e.g. automobile accident, required court appearance, death of a close relative, weather conditions which make it impossible to get to the university); and
 - (c) required attendance at an official UIUC activity (e.g. varsity athletics, band concert).
2. To request an excused absence, you must go to the website "<https://illinois.edu/fb/sec/411728>". You will be asked to attach an official document that confirms the reason of your request.
3. The dropped homework and quiz grades are intended for excused absences. If additional homework and quizzes are excused, then each such approved excuse will increase the number of grades that will be dropped.
4. An excused absence from a midterm exam will receive the score EX. At the end of the semester, midterm-exam EX scores will be replaced by a weighted average of your non-EX exam scores (midterm-exams and the final exam).
5. When possible, you will be required to attend another discussion section rather than miss your scheduled discussion section for one of the aforementioned circumstances. In this situation please contact Joel ASAP, so you don't get penalized on your HW assignment.

Effective use of email

Email is most useful when you need to report a problem or make a request or an appointment. But it is hard to discuss concepts, equations, plots or diagrams by email. If you have difficulties solving your homework or understanding a theoretical point, then bring a copy of your equations, diagrams, et cetera, and talk to one of us in person during office hours.

I usually reply to emails within one day, but I won't reply to emails requesting information that is readily available in this document or the course website (for example, "When is the first partial exam?"). Requests such as "I need to have my grade fixed on compass" should be addressed to Joel Krehbiel. Questions regarding Connect should be addressed to Ankit Saharan. Please do not send emails asking "What kind of problems will you give us in the exam?", "Can you give me an idea as to how many problems we should expect in the exam?", or other questions similar to these; instead, check the sample exams that have been posted on the course web page (or come to lectures, I will usually give some hints on that). Certain questions I cannot possibly answer individually without favoring one student over the rest of the class. For example, "Will the final exam include any problems on torsion?" Had I been willing to provide an answer to this question, I would have made an announcement to the entire class, not just to you by email.

Most of you have impeccable email etiquette, and I am sure all of you want to achieve this lofty status. Therefore, I do not answer emails that do not exhibit proper etiquette. There are numerous websites that address this subject. But in particular at least be sure to:

1. Mind Your Manners: Think of the basic rules you learned growing up, like saying please and thank you. Address people you don't know as Mr., Mrs., or Dr. Only address someone by first name if they imply it's okay to do so.
2. Watch Your Tone: Merriam-Webster defines tone as an "accent or inflection expressive of a mood or emotion." It is very difficult to express tone in writing. You want to come across as respectful, friendly, and approachable. You don't want to sound curt or demanding.
3. Sign your name: End you message with an appropriate closing and include your name.

Academic integrity

Infractions will not be tolerated. See the University's Student Code, Article 1, Part 4.