Linear Algebra: Introduction to the course

Mitaxi Mehta: Lecture 1

An apology and a song

 I have not given you a proper course handout yet. I apologize for that shortcoming on my part.

An apology and a song

- I have not given you a proper course handout yet. I apologize for that shortcoming on my part.
- The reasons for above were multifold. Prparing an honest course handout is a work of several days, looking into references, thinking and planning. I did not have that kind of time.

An apology and a song

- I have not given you a proper course handout yet. I apologize for that shortcoming on my part.
- The reasons for above were multifold. Prparing an honest course handout is a work of several days, looking into references, thinking and planning. I did not have that kind of time.
- I had previously submitted two detailed course handouts and LA got assigned to me much later due to some practical reasons.

 I want to do several new things in this course, particularly using python codes. The course handout written without proper practice and thought would have been highly misleading

- I want to do several new things in this course, particularly using python codes. The course handout written without proper practice and thought would have been highly misleading
- The reason that I am a teacher and not something else is that I like this profession. Working with you is refreshing.

- I want to do several new things in this course, particularly using python codes. The course handout written without proper practice and thought would have been highly misleading
- The reason that I am a teacher and not something else is that I like this profession. Working with you is refreshing.
- Every class we shall have a check-in with the high and low motions that people want to share. 4 chits will be read in every class.

- I want to do several new things in this course, particularly using python codes. The course handout written without proper practice and thought would have been highly misleading
- The reason that I am a teacher and not something else is that I like this profession. Working with you is refreshing.
- Every class we shall have a check-in with the high and low motions that people want to share. 4 chits will be read in every class.
- Why music? It relaxes and puts you in a playful states. It is one of the best states for learning.



Introduction to the course

 Pedagoy: I shall try to make this course students centric, hence I shall need to know a bit of your background.

Introduction to the course

- Pedagoy: I shall try to make this course students centric, hence I shall need to know a bit of your background.
- The information I need to know is, math confidence, language comfort, interest in team work, interest in interpersonal skills, usage perception, learning preferences.

Introduction to the course

- Pedagoy: I shall try to make this course students centric, hence I shall need to know a bit of your background.
- The information I need to know is, math confidence, language comfort, interest in team work, interest in interpersonal skills, usage perception, learning preferences.
- Questions are welcome and appreciated. One questioner usually helps a number of other students and helps break the monotony of the class.

Course introduction

 The class will be carried out in English. You can ask a question in any of the three languages, English, Hindi or Gujarati, if you want me to reply in a one of those specific languages please let me know.

Course introduction

- The class will be carried out in English. You can ask a question in any of the three languages, English, Hindi or Gujarati, if you want me to reply in a one of those specific languages please let me know.
- If you wish to use your laptops during class, you are free to do so.

Course introduction

- The class will be carried out in English. You can ask a question in any of the three languages, English, Hindi or Gujarati, if you want me to reply in a one of those specific languages please let me know.
- If you wish to use your laptops during class, you are free to do so.
- You can come and go from the class as needed, please don't disturb the class while moving.

• The text book is "Linear Algebra" by Gilbert Strang.

- The text book is "Linear Algebra" by Gilbert Strang.
- While I shall cover many topics in there, I shall not go as per the text book plan. I shall have my own version of the course and my content.

- The text book is "Linear Algebra" by Gilbert Strang.
- While I shall cover many topics in there, I shall not go as per the text book plan. I shall have my own version of the course and my content.
- Please follow the lecture notes, which will be published regularly online.

- The text book is "Linear Algebra" by Gilbert Strang.
- While I shall cover many topics in there, I shall not go as per the text book plan. I shall have my own version of the course and my content.
- Please follow the lecture notes, which will be published regularly online.
- I intend to have regular quizzes and one midterm and one final exam. Quizzes will be mostly unannounced, there may be two (or 3 quizzes) on consecutive days and there may not be any quiz for a month.

 Why? Because life treats you that way, difficulties come unannounced and you treat them as per your preparedness.

- Why? Because life treats you that way, difficulties come unannounced and you treat them as per your preparedness.
- In life you are sometime free to seek help and sometimes you need to work alone. I shall let you seek help in quizzes but all communication should be done in a written format, no talking during the quizzes.

 The midterm and final exams will be long problems only and....

 The midterm and final exams will be long problems only and....guess what ?

- The midterm and final exams will be long problems only and....guess what ? NO COLLABORATIONS
- Please interact on the online course page (very likely moddle) and also off-line. Ask a lot of quetions, it is a great and fun way to learn.

- The midterm and final exams will be long problems only and....guess what ? NO COLLABORATIONS
- Please interact on the online course page (very likely moddle) and also off-line. Ask a lot of quetions, it is a great and fun way to learn.
- Attendance will be as per university rules.

 Mathematics should make sense. If you see an equation try to visualize what it tells you.

- Mathematics should make sense. If you see an equation try to visualize what it tells you.
- All the equationn you write should have a left hand side (LHS) and a right hand side (RHS) with an = sign (or implication ⇒ if appropriate etc.) in between. Both sides should balance.

- Mathematics should make sense. If you see an equation try to visualize what it tells you.
- All the equationn you write should have a left hand side (LHS) and a right hand side (RHS) with an = sign (or implication ⇒ if appropriate etc.) in between. Both sides should balance.
- if LHS is a matrix RHS also should be a matrix, if LHS is a vector, RHS should also be a vector.

- Mathematics should make sense. If you see an equation try to visualize what it tells you.
- All the equationn you write should have a left hand side (LHS) and a right hand side (RHS) with an = sign (or implication ⇒ if appropriate etc.) in between. Both sides should balance.
- if LHS is a matrix RHS also should be a matrix, if LHS is a vector, RHS should also be a vector.
- Whatever operations you do on the LHS, usually the same operation is done on the RHS



• Attendance will be as per university rules.

- Attendance will be as per university rules.
- I may often wear a cap in the class. I shall tell you the reasons a little later.

- Attendance will be as per university rules.
- I may often wear a cap in the class. I shall tell you the reasons a little later.
- When I have earned your trust and respect, please feel free to call me "Mitaxi" or "Mi". "Prof." or "madame" for me is too formal and away from my goal of being more humane.

- Attendance will be as per university rules.
- I may often wear a cap in the class. I shall tell you the reasons a little later.
- When I have earned your trust and respect, please feel free to call me "Mitaxi" or "Mi". "Prof." or "madame" for me is too formal and away from my goal of being more humane.
- Why more humane ?

- Attendance will be as per university rules.
- I may often wear a cap in the class. I shall tell you the reasons a little later.
- When I have earned your trust and respect, please feel free to call me "Mitaxi" or "Mi". "Prof." or "madame" for me is too formal and away from my goal of being more humane.
- Why more humane? Turing,

- Attendance will be as per university rules.
- I may often wear a cap in the class. I shall tell you the reasons a little later.
- When I have earned your trust and respect, please feel free to call me "Mitaxi" or "Mi". "Prof." or "madame" for me is too formal and away from my goal of being more humane.
- Why more humane? Turing, H,

- Attendance will be as per university rules.
- I may often wear a cap in the class. I shall tell you the reasons a little later.
- When I have earned your trust and respect, please feel free to call me "Mitaxi" or "Mi". "Prof." or "madame" for me is too formal and away from my goal of being more humane.
- Why more humane? Turing, H, a neighnbor

- Attendance will be as per university rules.
- I may often wear a cap in the class. I shall tell you the reasons a little later.
- When I have earned your trust and respect, please feel free to call me "Mitaxi" or "Mi". "Prof." or "madame" for me is too formal and away from my goal of being more humane.
- Why more humane? Turing, H, a neighnbor math PhD

 For me, waht works best is to learn math visually and through working things out.

- For me, waht works best is to learn math visually and through working things out.
- If there is some other way you learn math better do let me know, write a mail or (preferably) post on coursepage.

- For me, waht works best is to learn math visually and through working things out.
- If there is some other way you learn math better do let me know, write a mail or (preferably) post on coursepage.
- Let us draw some lines.

- For me, waht works best is to learn math visually and through working things out.
- If there is some other way you learn math better do let me know, write a mail or (preferably) post on coursepage.
- Let us draw some lines.
- why lines?

Credits

 Thanks to my friend Radhika Vathsan at BITS Goa and the faculty members at BITS goa for sharing online tools and knowledge.

Credits

- Thanks to my friend Radhika Vathsan at BITS Goa and the faculty members at BITS goa for sharing online tools and knowledge.
- My students for keeping me on my toes most of the time.

Credits

- Thanks to my friend Radhika Vathsan at BITS Goa and the faculty members at BITS goa for sharing online tools and knowledge.
- My students for keeping me on my toes most of the time.
- Thanks for your questions and interactions, that is what makes any class meaningful.