

**Lecture**

TuTh | 2:40 - 4:00 pm | A116 Wells Hall

**Discussion**

M | 3:00 - 4:20 pm | A108 Wells Hall

**Instructor:** Brent Nelson**Email:** brent@math.msu.edu**Office:** D215 Wells Hall**Office Hours:** Tuesdays 4:00 - 5:00pm,  
Wednesdays 1:30 - 3:30 pm,  
and by appointment**ULA:** Luke Wiljanen**Email:** wiljane8@msu.edu**Course Webpage:** <http://www.math.msu.edu/~nelso787/317H.html>**Textbook:** [Linear Algebra Done Wrong](#), by Sergei Treil (September 4, 2017 version).

**Course Description:** This course covers the basics of linear algebra: vector spaces, linear transformations, matrix algebras, systems of linear equations, determinants, eigenvalues and eigenvectors, and inner product spaces. This corresponds to Chapters 1-5 in the above textbook, but some additional topics may be covered as well.

A secondary goal of this course is to develop skills in reading mathematics and writing proofs. For most students, this will be their first time writing rigorous mathematical proofs (outside of elementary geometry proofs encountered in high school). It is therefore natural to find this challenging at first, and so you should be prepared to work hard to overcome this.

I very much want each of you to succeed in this course, and I will make every effort to help you do so. However, if you come to the realization that this class is not for you, then I encourage you to talk to me within the first few weeks of the semester so that you can be placed in a different class.

**In-Class Tone:** My aim is to foster an open and inclusive atmosphere in class. Therefore questions, participation, collaboration, and curiosity are strongly encouraged. Math can be hard, especially when we aren't honest with ourselves about whether or not we understand something. Confusion is not a sign of weakness, nor is asking for help. If you need help beyond class time and office hours, please do not hesitate to contact me so that we can work out additional times to meet.

**Homework:** There will be a total of 12 homework assignments. These will be posted on the course webpage, and will be collected at the beginning of lecture on Thursdays. Collaboration is allowed (encouraged even), but your written work must clearly be your own and indicate that you understand the argument. No late homework will be accepted. The lowest two homework scores will be automatically dropped, and the remaining ten will count equally toward your overall homework score.

**Quizzes:** There will be a total of 12 quizzes. These will be administered in the first 10 minutes of Discussion on Mondays, and will typically be a review of the previous week's material. No make-up quizzes will be offered. The lowest two quiz scores will be automatically

dropped, and the remaining ten will count equally toward your overall quiz score.

**Midterms:** The course will have two in-class midterm examinations:

**Midterm 1** Thursday, October 3rd

**Midterm 2** Thursday, November 14th

No make-up exams will be offered (see grading policy below). Please check early in the semester to make sure you have no time conflicts with these exams.

**Final:** The final exam is on Wednesday, December 11th from 10:00am to 12:00pm. You must take the final exam to pass the class. Please bring your Spartan Card with you to the final exam.

Any student having two other final exams scheduled the day of this final exam may take a make-up exam given the next day. If you qualify for the make-up final exam, you must fill out a request at C212 Wells Hall no later than Friday, December 6th at 12:00pm (noon) and provide a recent copy of your schedule as documentation. You will NOT be allowed to take the make-up final without registering.

**Grading:** There will be two grading schemes offered and I will automatically select the one which gives you the best grade. They are as follows:

	<b>Homeworks</b>	<b>Quizzes</b>	<b>Midterms</b>	<b>Final Exam</b>
<b>Scheme 1:</b>	30% (3% each)	10% (1% each)	30% (15% each)	30%
<b>Scheme 2:</b>	30% (3% each)	10% (1% each)	15% (best one)	45%

Letter grades will only be assigned at the end of the course once a suitable distribution can be determined. Your overall raw score will always earn you a grade **at least as good as** the traditional grade buckets (e.g. 90% and above will earn at least an 'A-', 80% and above will earn at least a 'B-', etc.).

If you believe there is an error with the grading of any course material, **you must notify the instructor within 14 calendar days** of when it was completed, otherwise it will not be given further consideration.

**Academic Integrity:** Cheating will not be tolerated. Students who cheat may receive a 0.0 on the assignment or fail the course. This includes plagiarism and copying another's work. MSU policies on academic integrity can be found [here](#).

**Student Accommodations:** If the Resource Center for Persons with Disabilities (RCPD) has determined that you eligible for testing or classroom accommodations, then you should submit a [Verified Individualized Services and Accommodations document](#) (VISA) to the instructor no later than Thursday, September 20th.

**Course Calender:** The following is a schedule for the course (subject to change).

<b>Week 1</b>	8/28 - 8/30	Class begin on 8/28, follow Monday's schedule First discussion section on 8/28
<b>Week 2</b>	9/2 - 9/6	No class on 9/2 (Labor Day) Quiz 1 on 9/3, Homework 1 due on 9/5
<b>Week 3</b>	9/9 - 9/13	Quiz 2 on 9/9, Homework 2 due on 9/12
<b>Week 4</b>	9/16 - 9/20	Quiz 3 on 9/16, Homework 3 due 9/19
<b>Week 5</b>	9/23 - 9/27	Quiz 4 on 9/23, Homework 4 due 9/26
<b>Week 6</b>	9/30 - 10/4	Quiz 5 on 9/30, <b>Midterm 1</b> on 10/3
<b>Week 7</b>	10/7 - 10/11	Homework 5 due 10/10
<b>Week 8</b>	10/14 - 10/18	Quiz 6 on 10/14, Homework 6 due 10/17
<b>Week 9</b>	10/21 - 10/25	Quiz 7 on 10/21, Homework 7 due on 10/24
<b>Week 10</b>	10/28 - 11/1	Quiz 8 on 10/28, Homework 8 due 10/31
<b>Week 11</b>	11/4 - 11/8	Quiz 9 on 11/4, Homework 9 due 11/7
<b>Week 12</b>	11/11 - 11/15	Quiz 10 on 11/11, <b>Midterm 2</b> on 11/14
<b>Week 13</b>	11/18 - 11/22	Homework 10 due 11/21
<b>Week 14</b>	11/25 - 11/29	No Class on 11/28 (Thanksgiving) Quiz 11 on 11/25, Homework 11 due 11/27
<b>Week 15</b>	12/2 - 12/6	Quiz 12 on 12/2, Homework 12 due 12/5
<b>Finals Week</b>	12/9 - 12/13	<b>Final Exam</b> on 12/11 (10:00am - 12:00pm)

Other important dates:

- Wednesday 9/4 – Online open add period for fall semester ends at 8pm.
- Thursday 9/5 to Wednesday 9/11 – Students go to Undergraduate office, C212 Wells Hall for Mathematics enrollment changes. (Late add, drop to lower course, section changes)
- Monday 9/23 – Last day to drop with Tuition Refund (drop must be before 8pm)
- Wednesday 10/16 – Middle of Semester. Last day to drop a course without a grade being reported.
- Friday 12/6 – Last day of classes.