

# Spring 2017 - Math 141: Finite Mathematics Syllabus

#### **INSTRUCTOR INFORMATION**

Name	Janice Epstein				
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Office hours	Posted at http://www.math.tamu.edu/~epstein/17aMath141/				
Help Sessions Week in Reviews	http://www.math.tamu.edu/courses/helpsessions.html http://www.math.tamu.edu/courses/weekinreview.html				

# **CLASS TIMES**

MATH	141	508	M	03:00 рм-04:15 рм	<b>CVE 222</b>
MATH	141	509	M	04:30 рм-05:45 рм	<b>CVE 136</b>
MATH	141	510	M	06:00 рм-07:15 рм	<b>CVE 222</b>
MATH	141	511	W	03:00 рм-04:15 рм	<b>HECC 201</b>
MATH	141	512	W	04:30 рм-05:45 рм	<b>SCTS 317</b>
MATH	141	513	M	12:45 РМ-02:00 РМ	<b>BLOC 148</b>
MATH	141	514	W	12:45 PM-02:00 PM	<b>BLOC 148</b>
MATH	141	515	T	03:55 рм-05:10 рм	<b>CVE 136</b>
MATH	141	516	W	09:35 AM-10:50 AM	<b>CVE 136</b>
MATH	141	517	M	09:35 AM-10:50 AM	<b>CVE 136</b>
	MATH MATH MATH MATH MATH MATH MATH	MATH 141 MATH 141 MATH 141 MATH 141 MATH 141 MATH 141 MATH 141 MATH 141	MATH 141 509 MATH 141 510 MATH 141 511 MATH 141 512 MATH 141 513 MATH 141 514 MATH 141 515 MATH 141 516	MATH 141 509 M MATH 141 510 M MATH 141 511 W MATH 141 512 W MATH 141 513 M MATH 141 514 W MATH 141 515 T MATH 141 516 W	MATH       141       509       M       04:30 pm-05:45 pm         MATH       141       510       M       06:00 pm-07:15 pm         MATH       141       511       W       03:00 pm-04:15 pm         MATH       141       512       W       04:30 pm-05:45 pm         MATH       141       513       M       12:45 pm-02:00 pm         MATH       141       514       W       12:45 pm-02:00 pm         MATH       141       515       T       03:55 pm-05:10 pm         MATH       141       516       W       09:35 am-10:50 am

# **CATALOG DESCRIPTION**

*Finite Mathematics (Credit 3)* Linear equations and applications, systems of linear equations, matrix algebra and applications, linear programming, probability and applications, statistics. No credit will be given for more than one of Math 140, Math 141 and Math 166. Prerequisites: High school algebra I and II and geometry.

### **LEARNING OUTCOMES**

This course is focused on quantitative literacy in mathematics found in both business and everyday life. Upon successful completion of this course, students will be able to:

- Logically find relationships among variables to formulate mathematical models for everyday applications, including business applications, such as cost, revenue, profit, supply and demand.
- Understand matrices and their applications, including solving systems of linear equations.
- Construct linear programming problems for various applications and solve using graphical techniques, including finding the optimal point(s) where a company minimizes its cost or maximizes its profit.
- Understand set terminology and its relationship to symbolic notation.
- Use Venn diagrams to model the relationship between sets and set operations, with applications to real-world problems.
- Understand the principles of probability and counting and apply these concepts to a variety of problems, such as finding the number of ways or probability of obtaining particular card hands.
- Identify types of random variables and calculate probabilities and statistics for random variables.
- Apply the concepts of finance to real-world situations, such as financing a car or house.

## Техтвоок

Finite Mathematics for the Managerial, Life, and Social Sciences, 11th Edition, by Tan For more information go to <a href="http://www.math.tamu.edu/courses/eHomework">http://www.math.tamu.edu/courses/eHomework</a> and click on "Student Information Page".

## **CALCULATOR POLICY**

A TI-83, TI-83PLUS, TI-84, TI-84PLUS, or TI-Nspire Non-CAS (with an 84 faceplate) is REQUIRED. These are the only types of calculators that you are allowed to use on quizzes and exams. You must bring your calculator to every class period. NOTE: It is considered a violation of the Aggie Honor Code to have any programs, notes, etc. in your calculator that have not been approved by your instructor.

## **COMPUTER HOMEWORK**

There will be a graded computer homework assignment for each section we cover in-class. These assignments will be taken on the WebAssign computer system. For more information and to login please go to http://www.math.tamu.edu/courses/eHomework

#### **GRADING POLICIES**

**A** (90-100%), **B** (80-89%), **C** (70-79%), **D** (60-69%), **F** (0-59%)

#### All exams are held

Assignment	Date	Percentage
Exam I	Feb. 9 at 7:00 PM in ILSB 1105	15%
Exam II	Mar. 9 at 7:00 PM in ILSB 1105	15%
Exam III	Apr. 13 at 7:00 PM in ILSB 1105	15%
Computer Homework	Weekly	10%
Quizzes	Weekly	10%
Class Activities	Weekly	5%
Videos	Weekly	5%
Final Exam	May 4 at 6:00 PM in ILSB 1105	25%
TOTAL		100%

#### FINAL EXAM

The final exam will be a cumulative (comprehensive) exam. If your final exam grade is higher than your lowest test grade, the grade on your final will replace your lowest test grade in the final grade calculation. You must take all three exams for this option.

#### **ATTENDANCE AND MAKE-UP POLICIES**

Attendance is mandatory and may affect your grade. No assignments, quizzes, or exams will be excused without an official, written, University Excuse. You must notify me in advance to ensure the right to a make-up. If advance notice is not possible (i.e. sudden illness), you MUST contact me within TWO working days of the missed exam; otherwise, you forfeit the right to a make-up. An absence for a non-acute medical service or regular check-up does not constitute an excused absence. For more information please go to <a href="http://student-rules.tamu.edu/rule07">http://student-rules.tamu.edu/rule07</a>. Please note that I will NOT accept the Explanatory Statement for Absence from Class form as sufficient written documentation of an excused absence.

If you have a University approved absence for missing an exam, you will be expected to make up your exam the following Friday afternoon at 4P or on Monday morning at 8A. Only if you have a University approved absence for the day of the exam and the following Friday and Monday will you be allowed to have other arrangements made. You must discuss (email is fine) the need for a make-up exam with me before going to a scheduled time. Make-ups for the final will occur May 5 or May 8 - 10.

# AMERICANS WITH DISABILITIES ACT (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <a href="http://disability.tamu.edu">http://disability.tamu.edu</a>.

## **ACADEMIC INTEGRITY**

"An Aggie does not lie, cheat, or steal, or tolerate those who do." Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information please visit <a href="http://aggiehonor.tamu.edu/">http://aggiehonor.tamu.edu/</a>

# **CLASS FORMAT**

This course is a hybrid with all the lectures online at <a href="http://www.math.tamu.edu/~epstein/17aMath141/17a">http://www.math.tamu.edu/~epstein/17aMath141/17a</a> Video Links.html

To verify you have watched these videos, you will answer questions in WebAssign while viewing the videos. Class meets once per week with an undergraduate teaching assistant. During the weekly meetings you will have class activities and a quiz.

# **TENTATIVE WEEKLY SCHEDULE**

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WEEK OF	TOPIC	SECTIONS			
01/16	Linear functions and Mathematical models	1.3, 1.4			
01/23	Systems of linear equations	2.1, 2.2, 2.3			
01/30	Matrix arithmetic, Setting up Linear Programming problems	2.4, 2.5, 3.2			
02/6	Review, Exam 1 (1.3, 1.4, 2.1-2.5, 3.2)				
02/13	Graphing systems of linear inequalities, Linear Programming problems	3.1, 3.3			
02/20	Sets, Counting, Multiplication principle	6.1, 6.2, 6.3			
02/27	Multiplication principle, Permutations, Combinations, Experiments, Sample spaces, and Events	6.3, 6.4, 7.1			
03/6	Review, Exam 2 (3.1, 3.3, 6.1-6.4, 7.1)				
03/13	Spring Break				
03/20	Definition and rules of Probability, Counting techniques in probability	7.2, 7.3, 7.4			
03/27	Conditional probability, Independence, Bayes' Theorem	7.5, 7.6			
04/03	Distributions of random variables, Expected Value, Variance, Standard Deviation	8.1, 8.2, 8.3			
04/10	Binomial Distribution, Review, Exam 3 (7.2-7.6, 8.1-8.4)	8.4			
04/17	Normal distribution, Finance	8.5, 8.6, 5.1			
04/24	Finance	5.2, 5.3			
05/01	Review for Final Exam, Final Exams				