

Math 367, Section 1 - Spring 2020 Syllabus

Professor:	Dr. Andy Felt	Office:	SCI D355
Office Hours:	M 3:00 – 3:50 p.m.	Phone:	346-4207
	T, R 1:00 – 1:50 p.m.		
	F 9:00 – 9:50 a.m.		
	or by arrangement	email:	afelt@uwsp.edu

Class Meetings: T, R, F, 8:00 - 8:50 a.m., Sci. A212.

Text: *Game Theory and Strategy*, Straffin; *Intro. to Operations Research*, 6th ed., Hillier and Lieberman, available from UWSP Text Rental.

Course Web Page: <http://www4.uwsp.edu/math/afelt/teaching/M367.html>.

Calculators and Computers: A calculator will not be necessary in this course, but you may find one useful once or twice. You will need to use a computer to complete some of the homework. Campus computers will work fine.

Prerequisites: Math 121 or 109

Fundamental Skills to be Learned:

- Recognizing real life situations where mathematical models apply.
- Translating the real life situations into mathematical models.
- Solving the mathematical model.
- Interpreting the solution in the context of the real life situation.

Grading:

Category	Points	This many points gets you	⇒	at least this grade
Homework Assignments	100 points	414 (92%)	⇒	A,
2 Exams	200 points	405 (90%)	⇒	A–,
Final Exam (Comprehensive)	150 points	396 (88%)	⇒	B+,
Total	450 points	369 (82%)	⇒	B, etc.

Homework: Assignments should have the following format:

- Looseleaf paper only (no spiral schnibbles)
- Name, section, assignment, date on first page
- Stapled, each assignment separately

The grade for each assignment will include 20% based on accuracy and quality of written communication. Examples on this topic are given in Assignment 0. *No late homework is accepted for any reason.* Usually, there will be a class day between the day homework is assigned and the day it is due. Assignments are due at the beginning of class on the day they are due.

Help: Everybody needs help at some point. The key is to *get help right away* when you need it. Here are some ways to get help:

- ask a question in class;
- ask me during office hours;
- ask me in an email;

Disability Accommodations: Reasonable accommodations are available for students who have a documented disability. Please notify the instructor during the first week of class of any accommodations needed for the course. All accommodations must be approved through Disability Services, located at 609 Learning Resources Center or <https://www.uwsp.edu/datc/Pages/default.aspx>.

General Course Policies:

- Exams must be ONLY your own work. You may work together on homeworks (unless otherwise specified), but the material you turn in must be *your own*. Please see <https://www.uwsp.edu/dos/Pages/Student-Conduct.aspx> to read about your rights and responsibilities as a student, and Chapter 14 (at that page) to read about Wisconsin's academic misconduct code.
- Use of calculators or other technology will not be allowed on exams.
- Cell phones, computers, and other technology (such as smart watches) should be turned off and stowed away during class and exam times.
- The course handouts and lectures are the property of the instructor, and may not be copied or recorded (including audio recording or photography) without the instructor's permission.
- Everyone becomes ill sometimes. When you become ill, I expect you to make a reasonable effort to come to class. When illness or other emergencies require absence from class, I expect you to contact me immediately, preferably by email. I expect you to keep up with what is being taught by following in your book and doing the homework. Either have a friend bring your homework, or slide it under my office door. To account for illness and other emergencies, at least one homework score will be dropped.

Tentative Calendar

Week of	Ch.	Topics
Two-person zero sum games		
Jan 21	2	Dominance and saddle points
	3	Mixed strategies
Jan 27		Solving using LPs
Feb 3	4	Jamaican Fishing
	7	Game trees
Feb 10	8	Business application
	9	Utility theory
Two-person nonconstant-sum games		
Feb 17	11	Nash equilibria Exam I
Feb 24	12	Prisoner's dilemma
Mar 2	14	Strategic moves
	15	Evolutionarily stable strategies
Mar 9	16	Nash arbitration

Week of	Ch.	Topics
N-person games		
Mar 23		Management/Labor negotiations
	20	Strategic voting
Mar 30	21	N-person prisoner's dilemma
	22	The football draft
Apr 6	23	Imputations, domination and stable sets
	24	Pathan organization
Apr 13		Exam II
	25	The core
Apr 20	26	The Shapley Value
	27	The Shapley-Shubik power index
Apr 27		Special project
May 4		Special project
Tuesday, 12 May Final Exam 10:15–12:15		