MATH F113X Math in Society	Weekly Schedule (Tues-Thurs)		Spring 2026		
Assignments (in **Red**) should be completed by 11:59PM on the given date and turned in via Gradescope.					
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 1)	Jan 12	Jan 13	Jan 14	Jan 15	Jan 16
topics covered		Intro to Class, Syllabus Activity, Start Voting Theory, Preference schedules, Fairness criteria, Majority compared with Plurality method		Condorcet criterion, insincere voting, Instant Runoff Method/RCV, monotonicity criterion	
activities		**syllabus activity, WS 1: Voting 1**		**WS 2: Voting 2**	
deadlines			**syllabus activity**		
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 2)	Jan 19	Jan 20	Jan 21	Jan 22	Jan 23
topics covered	Alaska Civil Rights Day no class	Borda Count Method and possible drawbacks (majority criterion)		Copeland's Method (violates IIA criterion) and Arrow's Impossibility Theorem	
activities		**WS 3: voting 3**		**MiniQuiz1 - through IRV/RCV**	
deadlines			**HW 1**		last day to drop
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 3)	Jan 26	Jan 27	Jan 28	Jan 29	Jan 30
topics covered		Weighted Voting Terminology (quota, dictator, veto power, dummy, winning coalition)		Banzhaf Power Index and critical players	
activities		**WS 4: weighted voting systems**		**WS 5: weighted voting and Banzhaf power; MiniQuiz2 - through Voting Theory and start of Weighted Voting**	
deadlines			**HW 2**		

	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 4)	Feb 2	Feb 3	Feb 4	Feb 5	Feb 6
topics covered		The concept of Fair Division and the Divider-Chooser method		Lone Divider method; Sealed Bids method	
activities		**WS 6: fair division 1**		**WS 7: fair division 2; MiniQuiz3 - weighted voting**	
deadlines			**HW 3**		
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 5)	Feb 9	Feb 10	Feb 11	Feb 12	Feb 13
topics covered		Sealed Bids WS; Review for MT 1		Midterm 1	
activities		**WS 8: fair divison 3 (sealed bids); Exam Review**			
deadlines			**HW 4**		
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 6)	Feb 16	Feb 17	Feb 18	Feb 19	Feb 20
topics covered		Graph Theory Terminology; Minimal Cost Spanning Trees/Kruskal's Algorithm		Shortest Path Problem and Dijkstra's Algorithm	
activities		**WS 9: graph theory 1 (intro)**		**WS 10: Minimal cost spanning tree; WS 11: Shortest distance from a vertex. No Quiz.**	
deadlines					
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 7)	Feb 23	Feb 24	Feb 25	Feb 26	Feb 27
topics covered		Seven Bridges, Existence of Euler paths and circuits		Eulerization	
activities		**WS 12: graph theory 4 (euler paths and circuits)**		**WS 13: graph theory 5 (Eulerization); Miniquiz 4: graph theory info, Kruskal, spanning trees**	

deadlines			**HW 5, MT 1 Corrections**		
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 8)	Mar 2	Mar 3	Mar 4	Mar 5	Mar 6
topics covered		Intro to Hamiltonian Circuits and the Nearest Neighbor Algorithm; The Repeated Nearest Neighbor		The Sorted Edges/Cheapest Link Algorithm	
activities		**WS 14: Graph theory 6 (Hamiltonian circuits)**		**Miniquiz 5: Eulerian circuits and paths; Dijkstra's algorithm**	
deadlines			**HW 6**		
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 9)	Mar 9	Mar 10	Mar 11	Mar 12	Mar 13
topics covered		Spring Break; No Class		Spring Break; No Class	
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 10)	Mar 16	Mar 17	Mar 18	Mar 19	Mar 20
topics covered		Scheduling Terminology (Processors, Idle Time, Finishing Time) creating diagraphs ; Creating Schedules from a Priority List, and the Decreasing Time Algorithm		Finding the Critical Time and Critical Path, the Critical Path Algorithm	
activities		**discuss final project; WS 15: priority lists and decreasing time**		**Miniquiz 6: Hamiltonian cycles**	
deadlines			**HW 7**		
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 11)	Mar 23	Mar 24	Mar 25	Mar 26	Mar 27
topics covered		Comparing the Decreasing Time algorithm and the Critical Path algorithm; Review for Midterm 2		Midterm 2	
activities		**WS 16: critical path algorithm**			

deadlines			**HW 8; Submit Project Topic Selection**		(Withdrawal deadline)
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 12)	Mar 30	Mar 31	Apr 1	Apr 2	Apr 3
topics covered		Intro to Encryption; shift ciphers; Transposition ciphers		Progressive Caesar cipher, vigenère cipher, double transposition; More sophisticated hand ciphers	
activities		**WS 17: shift ciphers; WS 18: transposition ciphers.**		**WS 19: sophisticated hand ciphers. No quiz.**	
deadlines					
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 13)	Apr 6	Apr 7	Apr 8	Apr 9	Apr 10
topics covered		Introduction to Google Sheets and Finance		spreadsheets and interest	
activities		**WS 20: Intro to Spreadsheets**		**WS 21: spreadsheets and interest. Miniquiz 7 on encryption**	
deadlines			**HW 9; MT2 corrections Due**		
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 14)	Apr 13	Apr 14	Apr 15	Apr 16	Apr 17
topics covered		Simple Interest, Compound Interest, APR, Future Value, E!ective Rate		loans; credit cards and mortgages	
activities		**WS 22: spreadsheets and interest**		**WS 23: Credit cards and mortgages; Miniquiz 8: more encryption and intro to finance**	
deadlines			**HW 10**		
	Monday	Tuesday	Wednesday	Thursday	Friday

date (week 15)	Apr 20	Apr 21	Apr 22	Apr 23	Apr 24
topics covered		Review for Midterm 3		Midterm 3 - last day of instruction	
activities					
deadlines			**HW 11**		
	Monday	Tuesday	Wednesday	Thursday	Friday
date (week 16)	Apr 27	Apr 28	Apr 29	Apr 30	May 1
			Final Exam Time Slot - 10:15 a.m. -12:15 p.m., Wednesday April 29		
activities					
deadlines			**Final project; MT3 corrections**		