

# EXTRA CLASS SYLLABUS

## Santa Fe Trail Amateur Radio Club

Date	Class #	Begin Time	Instructor	Alt	Chapter-Section	Description
01/10/26	1	8:30				Collect money and pass-out books
			ALL			Student & Instructor Introductions
			Student		<b>1 Introduction</b>	
			Student		1.1	The Extra Class License and Amateur Radio
			Student		1.2	Extra Class Overview
			Student		1.3	The Volunteer Testing Process
			Student		1.4	How to Use This Book
			Mike	JA	<b>2 Operating Practices</b>	
			Mike	JA	2.1	General Operating
			Mike	JA	2.2	Amateur Satellites
			Mike	JA	<b>3 Rules and Regulations</b>	
			Mike	JA	3.1	Operating Standards
			Mike	JA	3.2	Station Restrictions
			Mike	JA	3.3	Station Control
			Mike	JA	3.4	Amateur-Satellite Service
			Mike	JA	3.5	Volunteer Examiner Program
			Mike	JA	3.6	Miscellaneous Rules
			Jim	LH	-	Basic Math Review
01/17/26	2	8:30			<b>4 Electrical Principles</b>	
			Jim	LH	4.1	Radio Mathematics
			Larry	GM	4.2	Electrical and Magnetic Fields
			Larry	GM	4.3	Principles of Circuits
01/24/26	3	8:30			<b>5 Components and Building Blocks</b>	
			Larry	GM	5.1	Semiconductor Devices
			Larry	GM	5.2	Optoelectronics
			Larry	GM	5.3	Digital Logic
01/31/26	4	8:30			<b>6 Radio Circuits and Systems</b>	
			George	GW	6.1	Amplifiers
			George	GW	6.2	Signal Processing
			George	GW	6.3	Digital Signal Processing (DSP and SDR)
			George	GW	6.4	Filters and Impedance Matching
02/07/26	5	8:30	George	GW	6.5	Power Supplies
					<b>7 Radio Signal and Measurements</b>	
			Jim	LH	7.1	Test Equipment
			Jim	LH	7.2	Receiver Performance
			Jim	LH	7.3	Interference and Noise

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02/14/26	6	8:30			<b>8</b>	<b>Modulation, Protocols, and Modes</b>
			Greg	JA	8.1	Modulation Systems
			Greg	JA	8.2	Digital Protocols and Modes
			Greg	JA	8.3	Amateur Television
			Jim	GM	9.1	Basics of Antennas
02/21/26	7	8:30			<b>9</b>	<b>Antennas and Feed Lines</b>
			Jim	GM	9.2	Practical Antennas
			Jim	GM	9.3	Antenna Systems
			Jim	GM	9.4	Transmission Lines
			Jim	GM	9.5	Antenna Design
02/28/26	8	8:30			<b>10</b>	<b>Topics in Radio Propagation</b>
			Greg	MS	10.1	Electromagnetic Waves
			Greg	MS	10.2	Solar Effects
			Greg	MS	10.3	HF Propagation
			Greg	MS	10.4	VHF/UHF/Microwave Propagation
					<b>11</b>	<b>Safety</b>
			George	MS	11.1	Climbing Safety
			George	MS	11.2	RF Exposure
			George	MS	11.3	Grounding and Bonding
03/07/26		9:00	ALL			TEST SESSION
		10:30	Jim			Practical Considerations
All class sessions end at aproximately noon.						
Classes are held in-person at the Salvation Army building, 420 E Santa Fe in Olathe, 66061, weather permititng						
In the event of snow days, the class will be conducted via zoom						
<b>Instructor Contact Information:</b>						
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