

Program Name: AAS in Telecommunication

	ILO#1	ILO#2	ILO#3	ILO#4	ILO#5
PLO 1.1	D				
PLO 1.2				D	
PLO 1.3	D				
PLO 2.1	D				
PLO 2.2		D			
PLO 2.3	D				
PLO 2.4		D			
PLO 2.5			D		
PLO 3.1			D		
PLO 3.2				D	
PLO 3.3				D	
PLO 3.4				D	
PLO 3.5					D
PLO 4.1	D				
PLO 4.2		D			
PLO 4.3			D		
PLO 4.4					D
PLO 4.5				D	
PLO 4.6					D
PLO 5.1				D	
PLO 5.2				D	
PLO 5.3					D
PLO 5.4					D
PLO 5.5					
PLO 6.1			M		
PLO 6.2			M		
PLO 6.3			M		
PLO 6.4			M		

Students will achieve mastery level when they apply and extend what they learned in the AAS in Telecommunication.

I = Introduce

D = Demonstrate

M = Mastery at a level appropriate for graduation. Mastery in a major is demonstrated through a capstone project or course.

Institution Learning Outcomes:

COM-FSM graduates will demonstrate that they can:

- a. communicate effectively
- b. employ critical thinking [*& problem solving*]
- c. possess specific knowledge and skills in a major discipline or professional program of study
- d. take responsibility and develop skills for learning
- e. interact responsibly with people, cultures, and their environment

AAS in Telecommunication Education Core Outcomes:

Goal 1: Practice safety and occupational health procedures in the work place

Students should be able to:

- 1.1 Demonstrate the proper use of personal protective equipment.
- 1.2 Practice safety at all times in the work place.
- 1.3 Follow and abide the rules set in the workshop.

Goal 2: Use electronics tools and test equipment competently.

Students should be able to:

- 2.1 Identify the driving tools, cutting tools, crimping tools and soldering tools.
- 2.2 Use the different tools in telecommunication competently.
- 2.3 Identify the signal generator, frequency counter, multimeter, logic probe and oscilloscope.
- 2.4 Use the signal and test equipment competently.
- 2.5 Maintain the tools and test equipment in an operational condition.

Goal 3: Interpret schematic diagrams and waveforms

Students should be able to:

- 3.1 Trace the electronics circuit board and wiring connection.
- 3.2 Measure voltage, frequency and presence of signal on each test point as specified in service manual.
- 3.3 Monitor electronics circuit signal behavior according to manufacturers specification and test point.
- 3.4 Check and verify each procedure and data on input and output of each electronics block in telecommunication circuit.
- 3.5 Adjust voltage and signal of a telecommunication system according to the prescribe industry standard.

Goal 4: Build electronics projects to a given specification

Students should be able to:

- 4.1 Follow the procedure in proper soldering technique using printed circuit board (PCB).
- 4.2 Recognize different electronics component.
- 4.3 Color code resistor and number code the capacitor value.
- 4.4 Follow the step-by –step procedure in circuit assembly.
- 4.5 Terminate and connect cables, wires and connectors.
- 4.6 Construct a circuit using breadboard.

Goal 5: Practice a career in the Telecom industry

Students should be able to:

- 5.1 Service cellular phone and regular telephone.
- 5.2 Splice and connect a connector of a fiber optics cable.
- 5.3 Color code telephone wiring standard.
- 5.4 Setup FM radio transmitter system.

5.5 Setup RF and microwave transceivers.

Goal 6: Troubleshoot microwave, fiber optic and telephone systems

Students should be able to:

6.1 Troubleshoot cellular phone and regular telephone.

6.2 Troubleshoot microwave system.

6.3 Troubleshoot fiber optics system.

6.4 Troubleshoot RF transceiver and receiver system.