

## Lesson Plan

Name of the Faculty: Ms. Tusharika

Discipline: Aeronautical Engineering

Semester: 7th

Subject: Avionics

Work Load (Lecture/Practical) per week (in hours): Lectures- 5 , Practical- 3

Week	Theory		Practical	
	Lecture day	Topic (including assignment/test)	Practical day	Topic
1 <sup>st</sup>	1 <sup>st</sup>	Introduction to Avionics	1 <sup>st</sup>	Multiplexer/Demultiplexer Circuits
	2 <sup>nd</sup>	Need for Avionics in civil and military aircraft		
	3 <sup>rd</sup>	space systems		
	4 <sup>th</sup>	space systems		
2 <sup>nd</sup>	5 <sup>th</sup>	Integrated Avionics and Weapon system	2 <sup>nd</sup>	Encoder/Decoder Circuits
	6 <sup>th</sup>	Integrated Avionics and Weapon system		
	7 <sup>th</sup>	Integrated Avionics and Weapon system		
	8 <sup>th</sup>	Typical avionics sub systems		
3 <sup>rd</sup>	9 <sup>th</sup>	Typical avionics sub systems	3 <sup>rd</sup>	Timer Circuits, Shift Registers, Binary Comparator Circuits
	10 <sup>th</sup>	Design and Technologies		
	11 <sup>th</sup>	Design and Technologies		
	12 <sup>th</sup>	Assignment 1		
4 <sup>th</sup>	13 <sup>th</sup>	Digital Computers	4 <sup>th</sup>	Addition and Subtraction of 8-bit and 16-bit numbers.
	14 <sup>th</sup>	Digital Computers		
	15 <sup>th</sup>	Microprocessors		
	16 <sup>th</sup>	Microprocessors		
5 <sup>th</sup>	17 <sup>th</sup>	Memories	5 <sup>th</sup>	Sum of a given series with and without carry.
	18 <sup>th</sup>	Memories		
	19 <sup>th</sup>	Avionics system architecture–Data buses		
	20 <sup>th</sup>	MIL–STD 1553 B		
6 <sup>th</sup>	21 <sup>st</sup>	MIL–STD 1553 B	6 <sup>th</sup>	Interface programming with 4 digit 7 segment Display & Switches & LED's.
	22 <sup>nd</sup>	ARINC 429		
	23 <sup>rd</sup>	ARINC 429		
	24 <sup>th</sup>	ARINC 629		
7 <sup>th</sup>	25 <sup>th</sup>	ARINC 629	7 <sup>th</sup>	16 Channel Analog to Digital Converter & Generation of Ramp, Square, Triangular wave by Digital to Analog Converter.
	26 <sup>th</sup>	ARINC 629		
	27 <sup>th</sup>	Assignment 2		
	28 <sup>th</sup>	Control and display technologies		
8 <sup>th</sup>	29 <sup>th</sup>	CRT, LED	8 <sup>th</sup>	Study of Different Avionics Data Buses.
	30 <sup>th</sup>	LCD, EL		

	<b>31<sup>st</sup></b>	plasma panel - Touch screen		
	<b>32<sup>nd</sup></b>	Direct voice input (DVI)		
<b>9<sup>th</sup></b>	<b>33<sup>rd</sup></b>	Civil cockpit and military cockpit	<b>9<sup>th</sup></b>	MIL-Std – 1553 Data Buses Configuration with Message transfer
	<b>34<sup>th</sup></b>	MFDS, HUD		
	<b>35<sup>th</sup></b>	MPK, HOTAS		
	<b>36<sup>th</sup></b>	Assignment 3		
<b>10<sup>th</sup></b>	<b>37<sup>th</sup></b>	Communication Systems	<b>10<sup>th</sup></b>	MIL-Std – 1553 Remote Terminal Configuration
	<b>38<sup>th</sup></b>	Communication Systems		
	<b>39<sup>th</sup></b>	Communication Systems		
	<b>40<sup>th</sup></b>	Navigation systems		
<b>11<sup>th</sup></b>	<b>41<sup>st</sup></b>	Navigation systems	<b>11<sup>th</sup></b>	
	<b>42<sup>nd</sup></b>	Flight control systems		
	<b>43<sup>rd</sup></b>	Flight control systems		
	<b>44<sup>th</sup></b>	Radar electronic warfare		
<b>12<sup>th</sup></b>	<b>45<sup>th</sup></b>	Radar electronic warfare	<b>12<sup>th</sup></b>	
	<b>46<sup>th</sup></b>	Utility systems		
	<b>47<sup>th</sup></b>	Utility systems		
	<b>48<sup>th</sup></b>	Reliability and maintainability		
<b>13<sup>th</sup></b>	<b>49<sup>th</sup></b>	Reliability and maintainability	<b>13<sup>th</sup></b>	
	<b>50<sup>th</sup></b>	Reliability and maintainability		
	<b>51<sup>st</sup></b>	Certification		
	<b>52<sup>nd</sup></b>	Certification		
<b>14<sup>th</sup></b>	<b>53<sup>rd</sup></b>	Assignment 4	<b>14<sup>th</sup></b>	
	<b>54<sup>th</sup></b>	Revision Class		
	<b>55<sup>th</sup></b>	Revision Class		
	<b>56<sup>th</sup></b>	Revision Class		
<b>15<sup>th</sup></b>	<b>57<sup>th</sup></b>	Class Test	<b>15<sup>th</sup></b>	
	<b>58<sup>th</sup></b>	Revision Class		
	<b>59<sup>th</sup></b>	Revision Class		
	<b>60<sup>th</sup></b>	Revision Class		