VARIAN
medical systems

Daily Schedule - High Energy C Technical Maintenance I

Monday

Section Description	Start Time	End Time
Lecture 1 - Course Introduction: Staff Introductions, Course Objectives, Building Layout, Emergency Procedures, Lab Procedures & Assign Lab Groups	08:30 am	10:00 am
Break	10:00 am	10:15 am
Lecture 2 - Safety	10:15 am	11:45 am
Lunch	11:45 am	1:15 pm
Lecture 3 - Technical Intro: System Overview, Machine States, Energy Modes, Subsystems	1:15 pm	2:45 pm
Break	2:45 pm	3:00 pm
Lab 1 - Orientation Component ID Functional Operation	3:00 pm	4:30 pm

Tuesday

Section Description	Start Time	End Time
Lecture 4 - Documentation: Databook Organization	08:30 am	10:00 am
Break	10:00 am	10:15 am
Lecture 4 (continued) - Documentation: Databook Organization	10:15 am	11:45 am
Lunch	11:45 am	1:15 pm
Lecture 5 - Power Distribution: Component ID, Power Production, Power Control Troubleshooting	1:15 pm	2:45 pm
Break	2:45 pm	3:00 pm
Lecture 5 (continued)	3:00 pm	4:30 pm

Wednesday

Section Description	Start Time	End Time
Lab 2 - Service Mode I: Setup, Interlocks, Motors, Service Menu Structure	08:30 am	10:00 am
Break	10:00 am	10:15 am
Lecture 6 - Modulator: Overview, Charge Cycle, Discharge Cycle, Support Circuits Interlocks	10:15 am	11:45 am
Lunch	11:45 am	1:15 pm
Lecture 7 - RF System: Waveguide Theory, Block Diagram, Klystron Theory	1:15 pm	2:45 pm
Break	2:45 pm	3:00 pm
Lecture 7 (continued) - AFC System: Theory, Block Diagram, 3-dB Quadrature Hybrid, Support Circuits	3:00 pm	4:30 pm

Thursday

Section Description	Start Time	End Time
Lab 3 - Service Mode II: Triggers, Lights, Calibration Menus, Gantry PRO Calibration	08:30 am	10:00 am
Break	10:00 am	10:15 am
Lab 4 - Modulator and RF Systems: Orientation & Function, Interlock Testing HVCB/HVOC/MOD, Waveforms, PMI Measurements	10:15 am	11:45 am
Lunch	11:45 am	1:15 pm
Lecture 8 - Control Systems: Component ID, System Overview, User Inputs and Outputs	1:15 pm	2:45 pm
Break	2:45 pm	3:00 pm
Lab - Reloading Console Software: Process & Procedure, Upgrade Procedure	3:00 pm	4:30 pm

Friday

Section Description	Start Time	End Time
Lab 5 - Control Systems Lab: Utilities Menu, Hex Window Display, Communications Mode, Event Log Analysis	08:30 am	10:00 am
Break	10:00 am	10:15 am
Lecture 9 - Control Systems Diagnostics: Computer Self Test, Common Ram Memory Map, CTRL & HWFA Troubleshooting LED & HEX Window Method. WEEK 1 ENDS.	10:15 am	11:45 am

Week 2

Monday

Section Description	Start Time	End Time
Lecture 10 - Electron Gun Theory: Construction, Timing, Dose Rate Control and Servo	08:30 am	10:00 am
Break	10:00 am	10:15 am
Lecture 11 - Digital Gun Driver: Overview, Function, Interconnection, Cold and Hot Deck Circuits	10:15 am	11:45 am
Lunch	11:45 am	1:15 pm
Lab 6 - Gun Driver: Location & Function, Waveforms, PMI Measurements	1:15 pm	2:45 pm
Break	2:45 pm	3:00 pm
Lab 7 - Peripherals: PSA Side Panels, Hand Pendants, Dedicated Keyboard, Error Codes, Thumbwheel Replacement	3:00 pm	4:30 pm

Tuesday

Section Description	Start Time	End Time
Lecture 13 - Auxiliary Electronics: Energy Mode Selection, BCD Codes, Mode Motions	08:30 am	10:00 am
Break	10:00 am	10:15 am
Lecture 13 (continued) - Auxiliary Electronics: Motion and Steering Control	10:15 am	11:45 am
Lunch	11:45 am	1:15 pm
Lecture 14 - Accessories: Overview & Function	1:15 pm	2:45 pm
Break	2:45 pm	3:00 pm
Lecture 14 (continued) - Accessories: Overview & Function	3:00 pm	4:30 pm

Wednesday

Section Description	Start Time	End Time
Lecture 12 - Dosimetry System: Ion Chamber, Theory, Power Supply & I/L; PCBs: Program, Integrators and EXQ, Servos - Position & PFN; CAL/CHECK Cycle	08:30 am	10:00 am
Break	10:00 am	10:15 am
Lecture 12 (continued)	10:15 am	11:45 am
Lunch	11:45 am	01:15 am
Lab 8 - Dosimetry Lab: Waveforms; Alignment Procedures: MU1/MU2 Matching, ION1/ION2 Matching, CAL Cycle Calibration, Waveforms	1:15 pm	2:45 pm
Break	2:45 pm	3:00 pm
Lab 8 (continued)	3:00 pm	4:30 pm

Thursday

Section Description	Start Time	End Time
Lecture 15 - Support Systems: Function & Changes, Water, SF6 Gas, Air	08:30 am	10:00 am
Break	10:00 am	10:15 am
Lecture 16 - Vacuum System: Theory & Function, VacIon Power Supply	10:15 am	11:45 am
Lunch	11:45 am	1:15 pm
Lab 9 - Support Systems Lab: Locations, PMI Calibrations: Water, SF6 Gas, Air	1:15 pm	2:45 pm
Break	2:45 pm	3:00 pm
Lab - Reloading Console Software: Process & Procedure, Upgrade Procedure	3:00 pm	4:30 pm

Friday

Section Description	Start Time	End Time
Lab 10 - Customer PMI Review: Document Review, Lab Time (as needed)	08:30 am	10:00 am
Break	10:00 am	10:15 am
Course Evaluation. Graduation!	10:15 am	11:45 am