

A-Step Course Syllabus

Day 1	TOPIC	TIME	TYPE	FACULTY
Introduction to Sleep Disorders				
0800-0830	Orientation & tour of the facility	0.50	Didactic	<i>G. Roldan</i>
0830-1230	Overview of Sleep Disorders Insomnias Sleep-Related Breathing Disorders Hypersomnias Circadian Rhythm Sleep Disorders Parasomnias Sleep Related Movement Disorders Other Sleep Disorders	4.00	Didactic	<i>H. Raroque</i>
1230-1330	Lunch			
1330-1430	Anatomy & Physiology of Sleep & Breathing Nose and Sinuses Tongue and Oropharynx Palate and Uvula Control of the Upper Airway	1.00	Didactic	<i>M. Lim</i>
1430-1530	How to obtain patient vitals: Height Weight Calculating Body Mass Index Blood Pressure Neck Size Temperature	1.00	Didactic/Practical	<i>M. Garcia</i>
1530-1630	Confidentiality & HIPPA Compliance Video presentation on HIPPA Compliance Medical Confidentiality Documentation Patient Privacy Forms Informed Consent	1.00	Didactic/Video	<i>M. Garcia</i>
	Subtotal	7.50	Didactic	

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Day 2	TOPIC	TIME	TYPE	FACULTY
Introduction to Sleep Disorders				
0800-0900	Infection Control and Patient Safety Universal Precautions Procedures for known infections Electrical Safety Equipment cleaning and sterilization procedures	1.00	Didactic	<i>T. Bell</i>
0900-1000	Medical Terminology Sleep terms and definitions Commonly used medical symbols and phrases ICSD-2 and ICD-9 Codes	1.00	Didactic	<i>M. Garcia</i>
1000-1200	The Role of the Polysomnographic Technologist Gathering & Analyzing Data Testing Preparation Procedures Polysomnographic Procedures	2.00	Didactic	<i>G. Roldan</i>
1200-1300	Lunch			
1300-1400	Overview of the BRPT Eligibility Requirements Standards of Conduct Application Procedures Acceptance for Examination Test Scoring and Score Reporting Examination Preparation	1.00	Didactic	<i>G. Roldan</i>
1400-1500	Taking a Sleep History Utilization of Sleep Questionnaires/Forms Interviewing the patient and/or bedpartner	1.00	Didactic	<i>G. Roldan</i>
	Subtotal	6.00	Didactic	

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Day 3	TOPIC	TIME	TYPE	FACULTY
	EEG			
0800-1000	Ancillary Equipment Amplifier Instrumentation Basic Electrical Principles Polarity & Amplitude Calculations Filters	2.00	Didactic	<i>T. Bell</i>
1100-1200	Electrical Activity of the Brain Brain structures and their purpose for sleep/wake Neurons Synapses Dendrites Neurotransmitters Sources of EEG activity	1.00	Didactic	<i>T. Bell</i>
1200-1300	Lunch			
1300-1400	Somnopharmacology Benzodiazepines Barbiturates Tricyclic Anti-depressants, SSRI's, MAO Inhibitors Stimulants	1.00	Didactic	<i>G. Roldan</i>
1400-1600	Int'l 10-20 Electrode Placement System for Sleep Identification of Nasion & Inion Identification of Pre-Auricular points Identification and measuring for C3, CZ, C4 Identification and measuring for O1, OZ, O2 Identification and measuring for F3, FZ, F4 Identification and measuring for FP1, FPZ, FP2 Placement of E1 and E2 Placement of the chin EMG leads Placement of the EKG leads Placement of the Intercostal & Leg EMGs Placement of the Airflow channel	2.00	Practical	<i>T. Bell</i>
		Subtotal	4.00	Didactic
			2.00	Practical

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Day 4	TOPIC	TIME	TYPE	FACULTY
	Scoring			
0800-1200	AASM New Scoring Criteria EEG Classification of Waveforms Stage N1 Stage N2 Stage N3 Stage R EEG Arousal Scoring 11 Scoring Criteria for EEG Arousals Respiratory Event Scoring Criteria for Scoring an Obstructive Apnea Criteria for Scoring a Central Apnea Criteria for Scoring a Mixed Apnea Criteria for Scoring an Obstructive Hypopnea Criteria for Scoring a Central Hypopnea PLMS Scoring Criteria Minimum and Maximum duration of a PLMS event Frequency of limb movements Scoring Rules Criteria	4.00	Didactic	<i>G. Roldan</i>
1200-1300	Lunch			
1300-1430	Sleep Stage & EEG Arousal Scoring	1.50	Practical	<i>G. Roldan</i>
1430-1600	Respiratory & PLMS Event Scoring	1.50	Practical	<i>G. Roldan</i>
	Subtotal	4.00	Didactic	
		3.00	Practical	

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Day 5	TOPIC	TIME	TYPE	FACULTY
	Scoring			
0800-0930	Sleep Stage & EEG Arousal Scoring	1.50	Practical	<i>G. Roldan</i>
0930-1100	Respiratory & PLMS Event Scoring	1.50	Practical	<i>G. Roldan</i>
1100-1200	Mathematical Computations for Generating a PSG Rep Calculating Latencies (Sleep & REM) Calculating Indices (AI, HI, AHI, PLMS, PLMAI) Calculating Percentages	1.00	Demo/Practical	<i>G. Roldan</i>
1200-1300	Lunch			
1300-1500	Measuring & Electrode Application Techniques Measuring utilizing the 10-20 Placement System Electrode properties and design Site & Skin Preparation Electrode Application	2.00	Practical/Demo	<i>T.Bell/G.Roldan</i>
	Subtotal	6.00	Practical	

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Day 6	TOPIC	TIME	TYPE	FACULTY
Respiratory Monitoring				
0800-0900	Respiratory Sleep Physiology Breathing mechanics Gas Exchange Ventilatory Control: REM & NREM Differences Room Air FIO2 and Supplemental Oxygenation	1.00	Didactic	<i>H. Raroque</i>
0900-1000	Monitoring Airflow Thermistors versus Thermocouples Nasal Pressure Transducers Capnography Snoring	1.00	Didactic	<i>M. Garcia</i>
1000-1100	Monitoring Respiratory Effort Respiratory Inductance Plethysmography Piezoelectric Sensors Esophageal Manometry Respiratory EMG (i.e., Intercostal/Pleural)	1.00	Didactic	<i>M. Garcia</i>
1100-1200	Practice Session: Airflow & Effort Hook-up	1.00	Practical	<i>M. Garcia</i>
1200-1300	Lunch			
1300-1500	Mock Sleep Study Simulation Entering Patient Demographics on Computer Selecting the appropriate Montage Patient Preparation/Electrode-Equipment Application Device & Physiologic Calibrations Special Orders	2.00	Practical	<i>M. Garcia</i>
1500-1530	Ending the Study and Cleaning-up Disconnecting the electrodes/monitoring devices Cleaning electrodes and ancillary equipment	0.50	Practical	<i>M. Garcia</i>
	Subtotal	3.00	Didactic	
		3.50	Practical	

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Day 7	TOPIC	TIME	TYPE	FACULTY
Sleep Related Breathing Disorders				
0800-0900	Obstructive Sleep Apnea Syndrome Definition and Clinical Features Epidemiology Pathophysiology Complications Polysomnographic Features	1.00	Didactic	<i>M. Lim</i>
0900-1000	Central Sleep Apnea & Hypoventilation Definition and Clinical Features Epidemiology & Relationship with Cardiopulmonary Diseases Pathophysiology Cheyne-Stokes Breathing Pattern Polysomnographic Features	1.00	Didactic	<i>M. Lim</i>
Scoring				
1000-1200	Practical Session: Staging, EEG Arousals, PLMS	2.00	Practical	<i>G.Roldan/M.Garcia</i>
1200-1300	Lunch			
1300-1500	Practical Session: Respiratory Scoring	2.00	Practical	<i>G.Roldan/M.Garcia</i>
	Subtotal	2.00	Didactic	
		4.00	Practical	

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Day 8	TOPIC	TIME	TYPE	FACULTY
CPAP/BiLevel Therapy				
0800-0900	CPAP/BiLevel Therapy Mechanics of PAP Therapy Physiologic Impact on PAP on the Lungs and Heart Complications Contraindications to PAP Therapy	1.00	Didactic	<i>G. Roldan</i>
0900-1000	CPAP/BiLevel Compliance Fixed Pressures vs. Auto-CPAP Compliance Reports Support Groups (i.e., A.W.A.K.E.)	1.00	Didactic	<i>M. Garcia</i>
1000-1100	CPAP Titration Protocols Split-Night Protocols All Night Titration Protocols	1.00	Didactic	<i>G. Roldan</i>
1100-1200	BiLevel Titration Protocols Indications for BiLevel Therapy Converting from CPAP to BiLevel Therapy	1.00	Didactic	<i>G. Roldan</i>
1200-1300	Lunch			
1300-1400	Practical Session: Mask Fitting Sessions Respironics Masks ResMed Masks Fisher & Paykel Masks Puritan-Bennett Masks Other manufacturers' masks	1.00	Practical	<i>M. Garcia</i>
1400-1500	Case Conference Case Presentations on Patients Treated with PAP	1.00	Didactic	<i>M. Lim/G. Roldan</i>
	Subtotal	1.00 5.00	Didactic Practical	

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Day 9	TOPIC	TIME	TYPE	FACULTY
Alternative Therapies				
0800-0930	Surgical Approaches to Snoring & Sleep Apnea UPPP vs. LAUP Tonsillectomy & Adenoidectomy Mandibular Advancement Septoplasty Radio-Frequency Ablation Therapy Tracheostomy Oral Appliances Positional Therapy	1.50	Didactic	<i>M. Lim</i>
Hypersomnias				
0930-1030	The Multiple Sleep Latency Test Clinical Practice Parameter for MSLT Minimum & Maximum Duration of a Nap Calculating Sleep & REM Latencies (if applicable) Narcolepsy Tetrad Diagnosis for Narcolepsy vs. Idiopathic Hypersomnolence	1.00	Didactic	<i>G. Roldan</i>
1030-1100	The Maintenance of Wakefulness Test Clinical Practice Parameter for MWT Procedure for performing the MWT Clinical Diagnosis of MWT based on Outcomes	0.50	Didactic	<i>T. Bell</i>
1100-1200	Practical Session: MSLT Case Studies Calculate Sleep & REM Latencies (if applicable) Calculate Mean Sleep Latency & SOREMPs Provide a diagnosis based on outcomes	1.00	Practical	<i>G. Roldan</i>
1200-1300	Lunch			
1300-1400	Movement Disorders Bruxism Rhythmic Movement Disorders: Body Rocking/Head Banging Latrogenic Movement Disorders Monitoring Techniques	1.00	Practical	<i>H. Raroque</i>
Report Generation				
1400-1500	Summarizing the Polysomnographic Report The Hypnogram Sleep Architecture: % of each stage; Sleep Efficiency Sleep Disordered Breathing Parameters PLMS Parameters Heart Rate/Cardiac Arrhythmias Oxygen Saturation and CO2 Reporting	1.00	Practical	<i>G. Roldan</i>
	Subtotal	3.00	Didactic	
		3.00	Practical	

A-Step Course Syllabus

Day 10	TOPIC	TIME	TYPE	FACULTY
Pediatric Sleep				
0800-0900	Pediatric Polysomnography Patient and Parental Preparation Montages Sleep Staging Room Design	1.00	Didactic	<i>G. Roldan</i>
0900-1000	Pediatric Sleep Disordered Breathing Clinical Features Epidemiology Associated Conditions Treatment Scoring Respiratory Events Criteria for Diagnosing Sleep Apnea	1.00	Didactic	<i>G. Roldan</i>
1000-1100	Other Pediatric Sleep Disorders Movement Disorders including RLS, PLMS Behavioral Problems NREM Parasomnias Seizures Munchausen Syndrome by Proxy Adolescent Sleep (i.e., Delayed Sleep Phase)	1.00	Didactic	<i>G. Roldan</i>
1100-1200	Practical Session: Scoring Pediatric Sleep Studies	1.00	Practical	<i>T. Bell/G. Roldan</i>
1200-1300	Lunch			
1300-1400	Emergency Procedures Cardiorespiratory Emergency Seizures Parasomnias Psychiatric Emergencies When to call a physician versus calling a Code	1.00	Didactic	<i>G. Roldan</i>
	Subtotal	4.00	Didactic	
		1.00	Practical	

A-Step Course Syllabus

Day 11	TOPIC	TIME	TYPE	FACULTY
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Skills Checklist

2000-0700	Practical Session: All night monitoring Computer Set-Up/Entering Patient Demographics Computer/Device Calibrations Patient Preparation and Electrode Hook-up Obtaining Patient Vitals All night monitoring Ending the study at the end of the night Cleaning-up the Electrodes/Ancillary Equipment	11.00	Practical	<i>T. Bell/M. Garcia</i>
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Subtotal 11.00 Practical

Day 12	TOPIC	TIME	TYPE	FACULTY
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Skills Checklist

0800-1100	Practical Session: Scoring Previous Night's Study Sleep Stage Scoring Respiratory Scoring EEG Arousal Scoring PLMS Scoring (if applicable)	3.00	Practical	<i>T. Bell/G. Roldan</i>
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1100-1200	Generating the Scored Report Presenting the above case with the diagnosis and recommendations for treatment	1.00	Practical	<i>G. Roldan</i>
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1200-1300 **Lunch**

1300-1700	Final Exam	4.00	Exam	<i>G. Roldan</i>
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Subtotal 3.00 Practical
2.00 Exam

Grand Total	38.50	Didactic	48.00%
	37.50	Practical	47.00%
	4.00	Exam	5.00%