

**ESCOME Laboratory Outline – Basic Course**  
(v1.09)

**Week 1 – Cervical Emphasis**

**Monday**

Morning		Afternoon	
08:30 – 10:30	<ul style="list-style-type: none"> <li>● Introductions, Tour of Campus &amp; Medical Education Building</li> </ul>	13:00 – 14:00	Cranial Halo Mayfield Gardner-Wells Cranial Traction
10:30 – 11:00	<ul style="list-style-type: none"> <li>● Surgical Anatomy of the Cervical Spine</li> </ul>		
11:00 – 11:15	<ul style="list-style-type: none"> <li>● Cranial Fixation</li> </ul>	14:00 – 15:30	Standard Anterior Extensile Cervical Approaches Including Vertebral Artery
11:15 – 12:00	<ul style="list-style-type: none"> <li>● Technical Details of Anterior Cervical Surgery</li> </ul>	15:30 – 16:00	Retropharyngeal Approach
	<ul style="list-style-type: none"> <li>● Lecture</li> </ul>		

**Week 1 – Cervical Emphasis**

**Tuesday**

Morning		Afternoon	
08:30 – 10:00	ACDF at C5 & C6, C6 & C7	13:00 – 14:30	C4 Corpectomy with Plate C3 – C5
10:00 – 11:00	ACDF at C3 & C4, C4 & C5	14:30 – 15:30	C5 Corpectomy with Plate C3 – C7 Strut with Kick Plate
11:00 - noon	C6 Corpectomy & Reconstruction With Fixation C5-7	15:30 – 17:00	Sternal Splitting Approach with Fixation C7 - T2

**Week 1 – Cervical Emphasis**

**Wednesday**

Morning		Afternoon	
08:30 – 09:15	<ul style="list-style-type: none"><li>● Surgical Details of Posterior Decompression and Instrumentation</li></ul>	13:00 – 14:30	Cervical Laminoplasty C3 – C5 & C6 – T1
09:15 – 10:30	Spinous Process Wiring (Rogers) C3–5 & C6–T1	14:30 – 16:00	Cervical Laminectomy and Foramenotomy C3 – T1
10:30 – 12:00	C1 – C2 Wiring & Fusion (Brooks) and Sublaminar, Midcervical Wire Passage	16:00 – 16:30	Duraplasty
	<ul style="list-style-type: none"><li>● Lecture</li></ul>		<b><u>NOTE: Need table with head holder</u></b>

**Week 1 – Cervical Emphasis**

**Thursday**

Morning		Afternoon	
08:30 – 10:00	Lateral Mass Fixation C3-T1	14:00 – 15:15	Odontoid Anterior Screw Fixation
10:00 – 11:30	C2 Pedicle Screw Constructs and Atlantoaxial Screw Fusions C1-2	15:15 – 16:30	Transoral Odontoid Resection
11:30 – 13:00	Occipital Fixation and Occipitocervical Fusions  C- Arm all day		

**Week 1 – Cervical Emphasis**

**Friday**

Morning		Afternoon	
08:30 – 09:00	<ul style="list-style-type: none"><li>• Details of Surgical Instrumentation of the Thoracic Spine</li></ul>	13:30 – 15:30	Vertebroplasty and Kyphoplasty – T Spine
09:00 – 10:30	Wiring – Sublaminar Luque & Drummond Wiring Techniques with Instrumentation	15:30 – 16:30	Cervicothoracic Instrumentation
10:30 – 12:30	Thoracic Pedicle Screw Techniques		
	C-Arm all day		
	<ul style="list-style-type: none"><li>• Lecture</li></ul>		

**Week 2 – Thoracic Emphasis**

**Monday**

Morning		Afternoon	
08:30 – 09:00	<ul style="list-style-type: none"><li>• Details of Anterior Thoracic and Lumbar Reconstruction</li></ul>	13:45 – 15:00	Left Thoracoabdominal 10 <sup>th</sup> Rib Extensile Approach T11-L4
09:00 – 10:45	Right 5 <sup>th</sup> Rib Thoracotomy Discectomy Depression and Fusion T6 – T7 and T7 – T8	15:00 – 16:30	Discectomy Instrumentation and Fusion with Cages T11-L4 (Corpectomy Optional)
10:45 – 12:45	Corpectomy and Reconstruction T 5-7 & T8-10 <ul style="list-style-type: none"><li>• Titanium Cages</li><li>• Femoral Ring Allograft</li><li>• Polymer Cages</li><li>• Rod/Screw Constructs, Single and Dual Rods</li><li>• Plates</li></ul>		
	<ul style="list-style-type: none"><li>• Lecture</li></ul>		

**Week 2 – Thoracic Emphasis**

**Tuesday**

Morning		Afternoon	
08:30 – 09:15	<ul style="list-style-type: none"><li>● Scoliosis and Trauma Surgery<ul style="list-style-type: none"><li>• Basic Principles</li><li>• Rod Contouring</li><li>• In Situ Bending</li><li>• Compression, Distraction Techniques</li><li>• Rod Rotational Maneuvers</li><li>• Sequential Rod Reduction Techniques</li></ul></li></ul>	13:30 – 14:30	Posterior Thoracic Laminectomy T5-9
09:15 – 11:30	Thoracic Hook Techniques and Instrumentation Strategies	14:30 – 16:00	Posterior Thoracic Transpedicular Approach T6-8
11:30 – 12:30	Thoracic Hook-Screw Hybrid Constructs	16:00 – 17:00	Posterior Thoracic Retropleural Approach with Corpectomy
	<ul style="list-style-type: none"><li>● Lecture</li></ul>		

**Week 2 – Thoracic Emphasis**

**Wednesday**

Morning		Afternoon	
08:30 – 10:30	Live Animal Lab Lumbar Laminectomy and Discectomy Epidural Vessel Control Dura Repair Decortication Technique	13 :00 -15:00	Posterior Thoracic and Lumbar Fusion Techniques including Decortication
10:30 – 12:00	Thoracotomy/Retroperitoneal Vessel Ligation and Mobilization	15 :00 – 16:30	Left Laminectomy L1 & 3

**Week 2 – Thoracic Emphasis**

**Thursday**

Morning		Afternoon	
08:30 – 10:00	Lumbar Pedicle Screws L1 – S1	13:00 – 15:00	PLIF L2-3 & L3-4 with Cages and Instrumentation
10:00 – 12:00	HNP, Far Lateral Disk Exposure and TLIF Right L4-5 and Left L5-S1	15:00 – 17:00	Facetectomy and Smith Peterson Osteotomy T10-L2 with Reduction

## Week 2 – Thoracic Emphasis

Friday

Morning		Afternoon	
08:30 – 09:00	● Sacral Pelvic Anterior and Posterior Fixation	13.:30 – 14:30	Wiltse Approach with Far Lateral Discectomy and Instrumentation Left L4-5, Right L5-S1
09:00 – 10:30	S-2, Alar and Iliac Fixation	14:30 – 15:30	Flouro Guidance to Nerve Root and Disk
10:30 – 11:30	Rod Contouring and Instrumentation T10 – Ilium	15:30 – 16:30	Posterior Iliac Crest Graft Harvest
11:30 – 12:30	Jackson Intrасacral Rod Techniques		
	C-Arm All Day		
	● Lecture		

**Week 3 – Lumbar Emphasis**

**Monday**

Morning		Afternoon	
08:30 – 09:30	<ul style="list-style-type: none"><li>• Tricks and Tips for Anterior Lumbar Exposure and Reconstruction</li></ul>	14:00– 15:30	Extensile Retroperitoneal Exposure with IlioLumbar Mobilization L1-S1
09:30 – 11:00	Anterior Retroperitoneal Exposure L3 – S1 with Vascular Mobilization	15:30 – 17:00	Corpectomy L2 &L4 with Strut and Instrumentation
11:00 – 12:30	ALIF L3 – S1 with Plating L5 – S1	17:00 – 17:30	Harvest Structural Tricortical Iliac Graft
12:30 – 13:00	Harvest non-structural Anterior Iliac Graft		
	<ul style="list-style-type: none"><li>• Lecture</li></ul>		

### Week3 – Lumbar Emphasis

**Tuesday**

Morning		Afternoon	
08:30 – 09:30	<ul style="list-style-type: none"><li>• Tips and Tricks for Reduction Maneuvers in Trauma and Deformity</li></ul>	13:30 – 15:00	Posterior Reduction Strategies and Fixation for Fracture Reduction in Cervical Spine
09:30 – 11:00	High Thoracotomy and Exposure T2-6	15:00 – 16:30	Posterior Reduction Strategies and Fixation for Fracture Reduction in Thoracolumbar Junction
11:00 – 12:30	Distraction and Compression Reduction Strategies in the Anterior Thoracic Spine		
	<ul style="list-style-type: none"><li>• Lecture</li></ul>		

**Week 3 – Lumbar Emphasis**

**Wednesday**

Morning		Afternoon	
08:30 – 10:30	Surgical Simulations for Reduction Methods in Scoliosis	13:30 – 14:00	Positioning Considerations in Spine Surgery
10:30 – 11:30	Surgical Simulations for Reduction Methods in Kyphosis	14:00 – 16:30	Mentor Cases Illustrating Key Technical Points of Surgery with Discussions of Alternative Methods
11:30 – 12:30	Surgical Simulations for Reduction Methods in Spondylolisthesis		

**Week 3 – Lumbar Emphasis**

**Thursday**

Morning		Afternoon	
08:30 – 09:15	<ul style="list-style-type: none"><li>• Important Considerations for Surgical Support (Anesth. Nursing, etc.)</li></ul>	13:00 – 16:00	Review and Refine Posterior Lumbar Techniques Selected by Partner Surgeon Pairs
09:15 – 12:00	Review and Refine Posterior Cervical Techniques Selected by Partner Surgeon Pairs		
	<ul style="list-style-type: none"><li>• Lecture</li></ul>		

