NEURO/ MUSCULOSKELETAL EXAM

EXAMINATION SKILLS	**Satisfactory/ Unsatisfactory**
1. Do camera angles allow the instructor to view all elements of the physical exam? 2. Is the recording completed in one take (no pauses or interruptions)? 3. Is the student referencing the check off sheet only briefly, a few times? 4. Is the student's physical examination technique correct for more than 80% of all of the exam elements? **If the answer is "NO" to any of these questions, mark INCOMPLETE, students will need to repeat the examination per the syllabus**	
SITTING	
1. Ensures **Privacy** • **Introduces self** & explains role • Confirms **Patient Identity** • **Informs patient** they will be verbally describing the examination	
2. Performs **Hand Hygiene**	
3. Inspects **Appearance**, comments on: • Dress, posture, grooming, & hygiene • Stature & build • Nutritional state	
4. Inspects **Behavior**, comments on**:** • Degree if Cooperativeness • State of distress • Affect • Eye Contact • Motor activity (normokinetic, bradykinetic, hyperkinetic)	
5. Assesses **Mood**, askes patient about mood, comments on: • Congruence with situation & affect	
6. Assess **Orientation** to person, time, and place • What is your name and DOB? • What is today's date and season of the year? • What is the name of this place or building? Comments on: • Interpretation, significance	
7. Tests **Memory** • **Recent** (short-term): ex. "What did you eat for breakfast?" • **Remote** (long-term): ex. "What did you do for your last birthday?" • **Short-term Recall & Attention**: Instruct patient to repeat 3 unrelated objects immediately & after 5 minutes Comments on: • Interpretation, significance	

8. Tests **Coordination** • **Arm Dystaxia**: Instructs patient to alternate hands touching nose, eyes closed • **Rapid Alternating Movements**: Instructs patient to touch each finger to the thumb of the same hand, both hands simultaneously, as fast as possible • **Leg Dystaxia**: Instruct patient to run heel from opposite knee down shin in a straight line. Comments on: • Smoothness of movement • Speed • Rhythm	
9. Tests **Sensory Function,** <u>instructs patient to close eyes throughout</u> • **Exteroceptive Sensation** o Instructs patient to say "dull" or "sharp" when felt o Touches extremities, first distal, then proximal, with cotton & toothpick • **Proprioception** o Instructs patient to say "up" or "down" o Holding a distal joint at the sides, position up or down, repeat bilaterally • **Graphesthesia** o Instructs patient to identify the number or letter o Draws letter or number on palm, repeat bilaterally • **Stereognosis** o Instructs patient to identify object & places object in patient's hand Comments on: • Interpretation, significance	
10. Tests **Deep Tendon Reflexes** bilaterally, instructs patient to relax, supports position • **Biceps**: elbow partially flexed and forearm pronated with palm down, places thumb on biceps tendon, strikes tendon indirectly by striking hammer on finger • **Triceps**: sitting or supported technique. *Sitting*, flex arm at elbow with palm toward body and pull slightly across chest, strikes tendon above olecranon process just above elbow; S*upported*, support elbow at 90 degrees abduction and instruct patient to allow arm to go limp, strikes tendon above olecranon process • **Brachioradialis**: rest hand on lap with forearm partly pronated, strikes tendon above radial styloid process • **Patellar**: sitting position with feet dangling, strikes patellar tendon just below patella • **Achilles**: partially dorsiflex foot at ankle, strikes achilles tendon Comments on: • Grade, significance	

11. Inspects, palpates, and tests active ROM of **Neck** • Flexion (45°) • Extension (55°) • Rotation (70°) • Lateral Bending (40°) Comments on: • Ecchymosis, erythema, edema, contour • Range of motion • Pain	
12. Inspects, palpates, and tests active ROM of bilateral **Shoulders** • Identifies **AC Joint** • Flexion (180°) • Extension (60°) • Abduction (180°) • Adduction (50° - 90°) • Internal & External Rotation (90°) Comments on: • Ecchymosis, erythema, edema, contour • Range of motion • Pain	
13. Tests for **Impingement** • **Painful Arc Test:** fully abducts shoulder to 180° • **Neer's Sign:** Internally rotate arm & passively flex shoulder • **Hawkins-Kennedy Test:** abducts shoulder 90° with palm facing down, internally rotates forearm Comments on: • Interpretation, significance	
14. Tests **Shoulder Stability**, performs **Anterior Shoulder Apprehension Test** • Patient positioned supine on exam table • Shoulder passively abducted 90° and elbow flexed 90°, externally rotate forearm; apply anterior pressure on humerus to stabilize Comments on: • Interpretation, significance	
15. Tests for **AC Joint** disorder, performs **Shoulder Scarf Test** • Rest hand on top of opposite shoulder, press elbow to push hand back Comments on: • Interpretation, significance	
16. Tests for **Scapular Instability**, performs **Lift-Off Test** • Places dorsum of hand against mid-lumbar spine • Instructs patient to lift their hand away from their back; repeat while applying resistance Comments on: • Interpretation, significance	

17. Inspects, palpates, and tests active ROM of bilateral **Elbows** • Identifies medial & lateral **Epicondyles** & **Olecranon Process** • Flexion (160°) • Extension (180°) • Supination & Pronation (90°) Comments on: • Ecchymosis, erythema, edema, contour • Range of motion • Pain	
18. Tests for **Epicondylitis** • **Medial** (Golfer's Elbow): palpate medial epicondyle, passively supinate forearm with elbow 90° flexed & supported, extends wrist/fingers and extends elbow fully • **Lateral** (Tennis Elbow): palpate lateral epicondyle, passively pronate forearm with elbow 90° flexion & supported, flexes wrist/fist and extends elbow fully Comments on: • Interpretation, significance	
19. Inspects, palpates, and tests active ROM of bilateral **Wrists** • Extension (70°) • Flexion (70 - 90°) • Radial deviation (20°) • Ulnar deviation (30-55°) Comments on: • Ecchymosis, erythema, edema, contour • Range of motion • Pain	
20. Inspects, palpates, and tests active ROM of bilateral **Hands & Fingers** • Identifies "**Snuffbox**" • Instructs patient to: o Make fist with thumb across knuckles o Extend and spread/flare fingers o Touch each digit to thumb Comments on: • Ecchymosis, erythema, edema, contour • Range of motion • Pain • Number, completeness, position, shape, & symmetry of digits	
21. Tests bilateral **Grip Strength**, comments on: • Interpretation, significance • Grade	

22. Tests for **Carpal Tunnel Syndrome** • **Tinel's Sign**: Percusses over median nerve in carpal tunnel • **Phalen's Sign**: Holds wrists in complete flexion, dorsums together for 60 seconds • **Carpal Compression Test**: With wrist supinated, applies pressure with both thumbs over median nerve in carpal tunnel Comments on: • Interpretation, significance	
23. Tests for **de Quervain Tenosynovitis** • **Finkelstein Test**: Grasps thumb, ulnar deviates the hand Comments on: • Interpretation, significance	
SUPINE	
24. Tests for **Meningeal Signs** • **Brudzinski's Sign:** Place one hand on chest, attempt to flex neck with other • **Kernig's Sign:** Flex hip and knee to 90 degrees and then slowly extend leg and straighten knee Comments on: • Interpretation, significance	
25. Tests **Babinski Reflex** • Drag handle of reflex hammer firmly across lateral aspect of the sole from heel to ball of foot curving medially across ball Comments on: • Interpretation, significance	
26. Inspect, palpates, & tests active ROM of bilateral **Hips**, repositions as needed • Identifies **Iliac Crest, ASIS, PSIS, & Greater Trochanter** • Flexion (with knee extended 90°; with knee flexed 130° - 150°) • Extension (prone; 5°- 40°) • Adduction (20° - 30°) • Abduction (45°) • Internal Rotation (35°- 45°) & External Rotation (40°-50°) Comments on: • Ecchymosis, erythema, edema, contour • Range of motion, presence or absence of **Crepitus** • Pain	
27. Inspects, palpates, & tests active ROM of bilateral **Knees** • Identifies **Suprapatellar Pouch**, **Popliteal Fossa**, **MCL**, **LCL**, & **Tibial Tubercle** • Flexion (135°) • Extension (180°) Comments on: • Ecchymosis, erythema, edema, contour, **Genu Varus** or **Valgum** • Range of motion, presence or absence of **Crepitus** • Pain	

28. Tests for **ACL & PCL Injury** • **Anterior/Posterior Drawer Test**; knee flexed to 90°, feet flat on table, grasps tibia just below knee with both hands, thumbs placed parallel to patellar tendon, draws tibia anteriorly & pushes tibia posteriorly • **Lachman's Test**; knee flexed to 20°-30°, grasps proximal tibia with one hand & femur other, pulls tibia anteriorly & pushes tibia posteriorly Comments on: • Interpretation, significance	
29. Tests for **MCL & LCL Injury** • **Varus Stress Test** (LCL): knee flexed to 20-30°, stabilizes distal femur with one hand & applies varus pressure at distal tibia to adduct lower leg slightly • **Valgus Stress Test** (MCL): knee flexed to 20-30°, stabilizes distal femur with one hand & applies valgus pressure at distal tibia to abduct lower leg while restricting axial rotation Comments on: • Interpretation, significance	
30. Tests for **Meniscal Tears** with **McMurray's Test** • **Lateral Tears**: With knee in complete flexion, holds bottom of foot with one hand & palpates knee joint with other, internally rotates tibia & extends knee • **Medial Tears**: With knee in complete flexion, holds bottom of foot with one hand & palpates knee joint with other, externally rotates tibia & extends knee Comments on: • Interpretation, significance	
31. Inspects, palpates, & tests active ROM of bilateral **Ankles** • Dorsiflexion (20°) • Plantar Flexion (45°) • Eversion (20°) • Inversion (30°) Comments on: • Ecchymosis, erythema, edema, contour • Range of motion • Pain	
32. Tests **Trunk Strength** by assisting patient to sitting position, comments on: • Degree of assistance needed	
STANDING	

33. Tests **Balance & Gait,** *stands near patient to provide support if needed* • **Romberg's Test**: instructs patient to stand with feet together, then close eyes (assess for 30-60 seconds) • **Pronator Drift**: instructs patient to stand with arms extended, palms up (assess for 20 seconds) • **Natural Gait**: instructs patient to walk across room • **Tandem Walking:** instructs patient to walk heel-to-toe • **Toes & Heels**: instructs patient to walk across room on toes & back on heels Comments on: • Smoothness of movement • Balance, guarding • Weakness • Stiffness	
34. Tests for **Meniscal Tears** with **Duck Walk Test** • Instruct patient to swat completely & waddle forward, backward & side-to-side Comments on: • Interpretation, significance	
35. Inspects, palpates, and test ROM of **Spine** • Flexion (75°-90°) • Extension (30°) • Lateral bending (35°) • Rotation Comments on: • Ecchymosis, erythema, edema, contour • Range of motion • Pain • **Posture** • **Alignment** of shoulders, hips, & feet	
36. Tests for **Scoliosis** • Instructs patient to bend forward with feet together, knees locked, arms in diving posture with fingertips aligned, head forward Comments on: • Interpretation, significance	
37. Appropriately **concludes** the exam with the patient	