lesson hardware guide

using Core Package hardware

	Page	Basic	Adv.	Ult.	Human	Animal	Biology	Psych	Ex. Phys.	BME	Pharm.	Intro MP45	HScS MP45	Hardware Used (optional)
BSL1: EMG I	43	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25, (OUT1A/40HP p26)
BSL2: EMG II	43			x	x		x		x	x			x	SS2LB p25, SS25LA p27, (OUT1A/40HP p26)
BSL3: EEG I	43	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
BSL4: EEG II	43	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
BSL5: ECG I	43	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
BSL6: ECG II	43	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB x2 p25
BSL7: ECG & Pulse	43		x	x			x	x	x	x				SS2LB p25, SS4LA p26
BSL8: Respiratory Cycle I	43		x	x			x		x					SS5LB and SS6L p26
BSL9: GSR & Polygraph	44		x	x			x	x						SS2LB p25, SS5LB and SS57L p26
BSL10: Electrooculogram (EOG) I	44	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB x2 p25
BSL11: Reaction Time *Auditory Stim* (L11A *Visual Stim*)	44		x	x			x	x	x	x				SS10L and OUT1A p26 (L11A: add OUT4)
BSL12: Pulmonary Function I	43		x	x	x		x		x	x	x		x	SS11LA p27, AFT6A p34
BSL13: Pulmonary Function II	43		x	x	x		x		x	x	x		x	SS11LA p27, AFT6A p34
BSL14: Biofeedback	44		x	x			x	x						SS2LB p25, SS57L p26
BSL15: Aerobic Exercise Physiology	44		x	x			x		x					SS2LB p25, SS6L p26, SS11LA p27
BSL16: Systemic Blood Pressure	43			x	x		x	x	x	x			x•	SS2LB p25, SS19LA/L p27, SS30L p28
BSL17: Heart Sounds	43			x	x		x	x	x	x			x	SS2LB p25, SS30L p28
BSL20: Spinal Cord Reflexes	43													SS2LB p25, SS36L p30, (SS20L p29)
H01 12-Lead ECG	45			x			x							SS29L p27
H02 BME Compartmental Modeling	44		x	x			x	x	x	x				SS2LB p25
H03 Nerve Conduction Velocity	44			x			x							SS2LB p25, BSLSTMB p25, HSTM01 p28
H04 Blood Pressure Response to Straining Exercise	44			x	x		x	x	x	x			x	SS19LA/L p27, SS30L p28
H05 Wingate Test (WAnT)	43		x	x			x		x					SS4LA p26
H06 Finger Twitch	43			x			x							SS61L p30 + STMHUM *or* SS12LA p27+ STMHUM
H07 EMG - Active Learning	43	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
H08 ECG Dive Reflex - Active Learning	44	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
H09 Auditory Evoked Potential (AEP)	44													BSLSTMB p25, OUT101 p31, BSLCBL6 p38
H10 Hemispheric EEG	44	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB x2 p25
H11 Mirror Test: Sensory Motor Learning & EDA	44		x	x			x	x						SS10L and SS57L p26
H12 Saccades: EOG	44	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
H13 Tracking: EOG	44	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
H14 Fixation I: EOG (3-lead)	44	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
H15 Fixation II: EOG (6-lead)	44	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB x2 p25
H16 Reflexes & Reaction Time - Active Learning	44		x	x			x	x	x	x				SS10L and OUT1A p26
H17 Biomechanics	44													SS2LB x2 p25, SS21L p29
H18 Exercise Phys. - Continuous Noninvasive BP	43													NIBP100D p32
H19 VO_2 & RER	45													SS11LA p27, GASSYS2 and AFT6A p34
H20 BME Filtering	43	x	x	x	x	x	x	x	x	x	x	x	x	no transducers required
H21 Impedance Cardiography (Cardiac Output)	44													SS2LB p25, SS30L p28, SS31L p29
H22 Visual Evoked Response (VER)	43													SS2LB p25, TSD122 p32
H23 Signal Averaged ECG	44	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
H24 Habituation	45		x	x			x	x						SS2LB p25, SS10L and SS57L p26
H25 BME Signal Processing I (8 circuits)	45									x				SS39L and (SS60L) p30
H26 BME Signal Processing II (ECG R-Wave Detector)	43										x			SS39L and (SS60L) p30
H27 Facial EMG	44	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB x2 p25, (SS10L p26)
H28 Reflex Response (patellar tendon)	43													SS2LB p25, SS36L p30, (SS20L p29)
H29 Basal Metabolic Rate	44													SS11LA p27, GASSYS2 and AFT6A p34
H30 Stroop Effect	44													SS10L p26, STP35W p32
H31 Prepulse Inhibition	44													SS2LB p25, STP35W p32, (OUT100 web)
H32 Heart Rate Variability Analysis	45	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
H33 BME FFT Fast Fourier Transform	43	x	x	x	x	x	x	x	x	x	x	x	x	no transducers required
H34 Electrogastrogram from human (stomach)	45	x	x	x	x	x	x	x	x	x	x	x	x	SS2LB p25
H35 Range of Motion: Sit & Reach	45													SS21L p29
H36 Muscular Biofeedback (auditory, visual, touch)	45		x	x			x	x	x	x			x	SS2LB p25, OUT1A/40HP p26
A01 Frog Pith & Prep	45					x	x			x				no transducers required
A02 Frog Gastrocnemius	45					x	x			x				SS12LA p27, STIM p25, ELSTM2 p38
A03 Frog Sciatic Nerve	45					x	x			x				STIM p25, NERVE1/2 p38, BSLCBL p39
A04 Frog Heart	45					x	x				x			SS12LA p27, (HDW p31)
A05 Visceral Smooth Muscle	45					x+	x+				x+			SS12LA p27, (HDW p31), (ITBS100 p33)
A06 Cockroach Ventral Nerve	45					x	x				x			BSLCBL8/9 p36, EL452 x3 p38
A07 Q_{10} Principle (Dissolved O_2-Goldfish)	45					x*	x*							SS69L p31 or BSL-TC116 p39
A08 Action Potential in Earthworm	45					x	x			x				STIM p25, NERVE1/2 p38, BSLCBL p39
A09 Properties of Turtle Heart Cardiac Muscle	45					x	x			x				SS12LA p27, STIM p25, STM2+452 p38, CBL8 p36
A11 Resting Potential - Crayfish Muscle	45					x†	x†				x†			BSLCBL8 p36, (CBL204 x2 p39)
A14 Central Pattern Generator (hornworm pupa)	45					x	x			x				BSLCBL8 p36, EL452 x3 p38
A15 Earthworm Smooth Muscle	45					x	x			x				SS12LA p27, (HDW p31), (ITBS100 p33)

*interface included, probe required +tissue bath required
-glass microelectrode required • no ECG
† requires Crawdad CD-ROM Lab Manual

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