### Biopac Student Lab

**Welcome!** Overview of the BSL system and support options

**Tutorial**

Basic Tutorial

**Lesson 1**

Electromyography (EMG) I  
*Standard & Integrated EMG*

**Lesson 2**

Electromyography (EMG) II  
*Motor Unit Recruitment & Fatigue*

**Lesson 3**

Electroencephalography (EEG) I  
*Relaxation & Brain Rhythms*

**Lesson 4**

Electroencephalography (EEG) II  
*Alpha Rhythms in the Occipital Lobe*

**Lesson 5**

Electrocardiography (ECG) I  
*Components of the ECG*

**Lesson 6**

Electrocardiography (ECG) II  
*Bipolar Leads (Leads I, II, III), Einthoven’s Law, Mean Electrical Axis on the Frontal Plane*

**Lesson 7**

ECG & Pulse  
*Mechanical Action of the Heart, Peripheral Pressure Pulse, Plethysmography*

**Lesson 8**

Respiratory Cycle I  
*Respiratory Rates, Relative Depths of Breathing, Regulation of Ventilation*

**Lesson 9**

GSR & Polygraph  
*Galvanic Skin Response & the Polygraph*

**Lesson 10**

Electrooculogram (EOG) I  
*Eye Movement; Saccades & Fixation During Reading*

**Lesson 11**

Reaction Time I  
*Reaction Time & Learning with Fixed-interval and Pseudo-random Presentation Trials*

**Lesson 12**

Pulmonary Function I  
*Volumes & Capacities*

**Lesson 13**

Pulmonary Function II  
*Pulmonary Flow Rates (FEV₁,₂,₃ and MVV)*

**Lesson 14**

Biofeedback  
*Relaxation & Arousal*

**Lesson 15**

Aerobic Exercise Physiology  
*Cardiovascular & Respiratory Adjustments During and After Exercise*

**Lesson 16**

Blood Pressure  
*Indirect BP Measurement, Ventricular Systole & Diastole, Korotkoff sounds, Mean Arterial Pressure*

**Lesson 17**

Heart Sounds  
*Cardiac valve functions, Electrical & Mechanical Events*

**Lesson 18**

Spinal Cord Reflexes  
*Latent periods & reaction times; Contractile force vs. stimulus strength; Jendrassik maneuver influence; Voluntary vs. involuntary activation of skeletal muscle*

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