Human Computer Interaction Laboratory

We are interested in how people engage with computers and interact with websites and technology. We are measuring psychophysiological responses to better understand how an online support system affects the trauma recovery process. We use this knowledge to inform technological interventions and treatments for:

- Trauma survivors
- Disaster survivors
- First responders
- Secondary trauma and burnout

Psychophysiological measurements are relatively non-invasive methods to assess autonomic reactivity. We are equipped to monitor:

**Electrocardiography (ECG/EKG),** an electrical recording of the heart that is widely used in medical cardiology and considered an indication of autonomic nervous system activity;

**Galvanic skin conductance (GSC),** a measure of levels of sweat in the sweat glands of the fingertips. It is considered a mechanical indicator of activities of the sympathetic nervous system;

**Electromyography (EMG),** an electrical recording of the neuronal activity in a muscle. We use EMG to assess the facial muscle activities as an indicator of facial expressions representing emotional state;

**Respiration** which is sensitive to psychological and physiological changes. It is also an indicator of emotional states.