

M502: Media Research
Measuring Psychophysiological Responses to Media
Spring Semester, 2020--Section 30633

Professor

Dr. Robert F. Potter
rfpotter@indiana.edu
812-856-2546

Office hours: Wednesdays from 1-3pm in FF 019

Note: It is best to email me to let me know you are coming rather than dropping in.
“Drop ins” are welcome, but appointments get first priority.

Class Meetings

M 11:45am-2:15pm
FF 212

Course Description

This course is designed to introduce students to the field of psychophysiology and explore ways it has been applied to the study of media message processing. Students are expected to be comfortable with quantitative data analysis. We will begin with a history of the field of psychophysiology, an exploration of how it has been used in studying media, and a discussion of the theoretical assumptions underlying all measures.

Then, we will turn toward specific measures. Topics include measurement of cardiac activity via the electrocardiogram (ECG); measurement of sympathetic nervous system activation via electrodermal activity (EDA); measurement of facial muscle activity via electromyography (EMG); measuring visual attention through eyetracking; and direct measurement of central nervous system activity via the electroencephalogram (EEG).

The course will include a practical lab component. Students will be expected to learn and apply data recording and analysis techniques.

Readings

These will be made available to you either in Canvas or through textbooks available in the ICR.

OTHER IMPORTANT ADMINISTRATIVE INFORMATION

Software Access

Get no-cost access to hundreds of software programs and applications.

Use [IUware](#) to install software directly onto your hard drive. Use [IUanyWare](#) to stream 400+ apps on your desktop or through the mobile app with your IU login.

Disabilities

To request disability accommodations, please contact IU Disabilities Services (855-3508) or visit [their Website](#) for more information.

Academic Misconduct

All acts of dishonesty in any academic work constitute academic misconduct. This includes, but is not limited to, the following:

Cheating-using or attempting to use unauthorized materials, information, or study aids in any academic exercise. This includes purchased notes or materials.

Plagiarism-representing the words, ideas, or data of another as one's own in any academic exercise. [How to Recognize Plagiarism](#)

Fabrication-unauthorized falsification or invention of any information or citation in an academic exercise.

Aiding or abetting academic dishonesty-intentionally or knowingly helping or attempting to help another student commit an act of academic dishonesty.

Academic Misconduct will not be tolerated in this class. If misconduct is suspected, Dr. Potter is required to meet with you to discuss it. A summary of the incident, our discussion, any evidence, and a description of the sanction will be sent to the [Office of Student Conduct](#). Consequences may include a grade reduction on your assignment and/or your course grade. You have the right to appeal this sanction and the Office of Student Conduct will inform you of that process.

Religious Holidays

According to IU policy, accommodations will be made if you need to miss class for observance of a religious holiday. [Find out details here.](#)

Sexual Misconduct and Title IX

As your instructor, one of Dr. Potter's responsibilities is to create a positive learning environment for all students. Title IX and IU's Sexual Misconduct Policy prohibit sexual misconduct in any form, including sexual harassment, sexual assault, stalking, and dating and domestic violence. If you have experienced sexual misconduct, or know someone who has, the University can help.

If you are seeking help and would like to speak to someone confidentially, you can make an appointment with:

The Sexual Assault Crisis Services (SACS) at (812) 855-8900
(counseling services)

Confidential Victim Advocates (CVA) at (812) 856-2469
(advocacy & advice services)

IU Health Center at (812) 855-4011
(health & medical services)

It is also important that you know that Title IX and University policy require Dr. Potter to share any information brought to his attention about potential sexual misconduct, with the campus Deputy Title IX Coordinator or IU's Title IX Coordinator. In that event, those individuals will work to ensure that appropriate measures are taken and resources are made available.

Protecting student privacy is of utmost concern, and information will only be shared with those that need to know to ensure the University can respond and assist.

You are encouraged to visit stopsexualviolence.iu.edu to learn more.

Course Tasks

Reading/Video Comments (5 % of final grade)

Each student is expected to submit comments on the assigned readings prior to each class meeting. These are for YOUR benefit and therefore can take a variety of forms: summaries of major points, questions for discussion, points of information/clarification, opinions of the particular reading in light of other things you have learned/experienced, etc. However, I *will* read them so you should view it as external motivation to get the reading done somewhat early and think about it deeply. These comments must be submitted to Canvas by **6 pm Sunday** to allow me to read it before class.

In Class Activities/Engagement (20% of final grade)

On Mondays we will often be ‘hands on.’ Practicing techniques used to collect, pre-process, and analyze physiology data. Sometimes you will need to turn in completed tasks (experiments in Media Lab, data sets, etc.) Other times you will need to rotate through roles as *researcher* and *participant*.

Take Home Midterm Exam (25% of final grade)

At 5pm Monday March 2 you will have access to an exam via Canvas. This will be a combination of short essay questions about assumptions of psychophysiology, experimental design, lab vocabulary, and “the big three” psychophysiology measures in media psychology (ECG, EDA, EMG). There will also be an Acqknowledge data set that you will need to perform some procedures on. Your answers will be due Friday March 6 at 5pm. Late submissions will have their scores deducted by 10% every 24-hour period.

Research Proposal (25% of final grade)

You will submit a complete research proposal, including literature review, hypotheses, and a discussion of the measures you expect to use. The goal here is to have you leave this course with a proposed piece of research that you can complete in the future in the ICR.

Initial Proposal Presentation (10% of final grade)

A chance for you to get some initial peer-review on your research proposal, and perhaps make changes as a result. Give us literature review to bring us up to speed on the topic, explain the proposed experimental design and procedures. What dependent variables will you use, physiological and otherwise. What analysis strategy will you use to test your hypotheses? This should be about 15-20 minutes long. PowerPoint slides should be uploaded to Assignments in Canvas prior to class.

Final Proposal Presentation (15% of final grade)

Same as above, but with results from pilot data you collect in the ICR

Tentative Course Schedule

Week	Monday Class Meeting	Readings During Week	Video Lectures During Week
Wk1 (Jan 13)	Syllabus, Introductions History & Assumptions	Bellman	<ol style="list-style-type: none"> 1. Assumptions 2. Intro to experimental design
Wk 2 (Jan 20)	Martin Luther King Jr. Day No Class Meeting	Matsumoto et al. Marshall-Goodell et al. Media Lab Manual (optional)	Intro to Media Lab (ML) Using ML to put markers into physiology data
Wk 3 (Jan 27)	Assumptions Neuroscience 101 ML in class activity	Potter & Bolls Chapters 3 & 4	Acqknowledge templates
Wk 4 (Feb 3)	Basic Lab Vocab The Signal Chain Lab Safety ECG Data Collection (DC)	Berntson et al. Wise (2018)	Extracting and preprocessing ECG
Wk 5 (Feb 10)	ECG lecture Data Extraction class activity	Cummins (2018) iMotions quick guide	
Wk 6 (Feb 17)	Eye Tracking DC	Potter & Bolls Chapter 5 Bailey (2018) Read (2018) Levenson et al.	Emotion Theory

Week	Monday Class Meeting	Readings During Week	Video Lectures During Week
Wk 7 (Feb 24)	EDA/EMG DC	Dawson et al. Tassinary et al.	Extracting and preprocessing EDA & EMG How to record and use a macro in Excel
Wk 8 (Mar 2)	EDA/EMG lecture Data Extraction in Class Activity Receive Midterm Due by Friday at 11:59pm	Jennings & Allen (2017) iMotions quick guide	
Wk 9 (Mar 9)	Facial Coding DC	Journal Club	
Wk no (Mar 17)	Spring Break	Spring Break	
Wk 10 (Mar 23)	Journal club	Repeated Measures	ANOVA data set preparation
Wk 11 (Mar 30)	RM ANOVA Exercise	Page-Gould (2017)	HLM data set preparation
Wk 12 (Apr 6)	HLM Exercise	--	--
Wk 13 (Apr 13)	Initial Proposal Presentations	Read & Innis (2018)	--
Wk 14 (Apr 20)	EEG data collection	--	--
Wk 15 (Apr 27)	Pilot Data Collection	Pilot Data Collection	Pilot Data Collection
Finals (May 4)		Final Presentation 10:15-12:15	