

Affective Psychophysiology (PSYC435) – Fall 2022
Mondays 2:30-5:30pm, Humphrey Hall 223

Instructor: Vera Vine, PhD

My pronouns: she/her

Please call me: “Dr. Vine,” “Professor,” or “Professor Vine”

Emails to vera.vine@queensu.ca (please include “PSYC435” in the subject line)

Office Drop-In Hours: Thursdays, 4:30-5:30pm (Humphrey Hall 346)

Course Description

This course explores complexities in the study of psychophysiology to understand human experience. We consider questions like, how is the body involved in generating emotional experience? What can we learn about socially important processes by measuring activity in the body? How does measuring the body help us understand why some people thrive and others struggle with mental health? Students will learn about body systems involved in socio-emotional outcomes and how they are measured and will consider benefits and interpretive challenges inherent to this area of research.

Land Acknowledgement

Queen’s is situated on traditional Anishinaabe and Haudenosaunee territory. We are grateful to be able to live, learn and play on these lands. To acknowledge this traditional territory is to recognize its longer history, one predating the establishment of the earliest European colonies. It is also to acknowledge this territory’s significance for the Indigenous peoples who lived, and continue to live, upon it and whose practices and spiritualities were tied to the land and continue to develop in relationship to the territory and its other inhabitants today. The Kingston Indigenous community continues to reflect the area’s Anishinaabek and Haudenosaunee roots. There is also a significant Métis community and there are First people from other Nations across Turtle Island present here today.

To read more about the history of the land, see the [Queen's Encyclopedia](#) and information about [moving beyond territorial acknowledgements](#).

Equity and Inclusion

Direct, indirect, and systemic discrimination exists within our institutional structures and in our community. Inequities many forms and work to differentially advantage and disadvantage persons across social identities such as race, ethnicity, disability, gender identity, sexual orientation, faith, and socioeconomic status, among other examples.

Every student in this class is entitled to be treated with dignity. If you choose to remain in this class, it indicates that you are committed to cultivating a climate of respect for each of your fellow classmates. If you have never been minoritized in a setting where you lived, worked, or went to school, then I expect that you will work especially hard at this. While I welcome (and expect) participation from everyone, please be mindful of *over-occupying* class time with your contributions, to the detriment of your peers.

Learning Outcomes

Upon successful completion of this course, students will be able to

CLO1	Describe the basic anatomy and function of the autonomic nervous system and other peripheral systems relevant to emotion; describe methodology commonly used to measure them; understand common psychological interpretations of these functions, including ambiguities
CLO2	Apply principles from affective psychophysiology to socially important outcomes, especially phenomena in clinical psychology and selected processes in developmental and social psychology
CLO3	Integrate principles across different aspects of the course, for instance, integrating principles from assigned readings to independent and group work, or from class discussions to weekly reading assignments
CLO4	Demonstrate improved reading, writing, and communication mechanics in psychology and related fields; read more carefully and with deeper comprehension, even of content outside one's knowledge area; communicate more clearly orally and in writing
CLO5	Participate in learning as an active and self-motivated partner; evaluate one's own progress in learning and scholarship
CLO6	Practice balancing autonomy & collaboration in academic endeavors; develop original ideas in response to coursework and develop ideas further in collaboration with peers

Course Materials

Assigned readings (articles, chapters, and excerpts from these) will be available in OnQ. The texts themselves for the entire term will be posted by the end of the Week 2.

Course Timeline

<u>Class Session</u>	<u>Focus</u>	<u>Associated Readings & Due Dates</u>
Week 2 (9/12)	Introductions, course overview, background	-Darwin, excerpt from <i>The Expression of Emotion in Man and Animals</i> -James, excerpt from <i>What is an Emotion?</i> -Plutchik, 1994: "Emotions, affects and moods: Are they the same?" (1p); "The Future of Emotions" (2pp) *Readings for this week are short and are suggestions only; they are not required*
Week 3 (9/19)	Emotion & its psychophysiology	-Frijda, 1986 (chapter excerpts) -Levenson et al., 2016 (chapter excerpt, first 7.5pp only) -Larsen et al., 2008
Week 4 (9/26)	The heart & its rate; study design in psychophysiology	-Berntson et al., 2016 (chapter excerpt, first 5.5pp only) -Hasset & Danforth, 1982 (chapter in full) -Levenson et al., 2016 (chapter excerpt, continuing from last week, next 4.5pp only) Keynote Article Analysis due
Week 5 (10/3)	The cardiac time series: HR/IBI & basic cognitive and affective processes	-Fowles, 1982 (chapter excerpts only) -Bradley et al., 2012 (article excerpt, first 2pp only) -Helminen et al., 2017
Thanksgiving & Reading Week – No Class		
Week 6 (10/17)	RSA, part 1 & intro to developmental psychophysiology	-Segalowitz & Schmidt, 2008 (brief chapter in full) -Beauchaine & Bell, 2016 (chapter excerpt, first 4pp only) -El-Sheikh & Hinnant, 2011

P&E Reflection due		
Week 7 (10/24)	RSA, part 2 & emotion dysregulation in youth	-Cui et al., 2015 -Borelli et al., 2017
Annotated Bibliography due		
Week 8 (10/31)	Pre-ejection period (PEP) & depression	-Franzen & Brinkmann, 2015 -Silvia et al., 2016
Week 9 (11/7)	Blood pressure & stress	-Lovallo, 2016 (chapter in full) -Gianaros & Sheu, 2009 (article excerpt, first 5, 6, or 7pp only) -Dupont et al., 2020
Week 10 (11/14)	Electrodermal activity & disinhibition	-Dawson et al., 2016 (chapter in full) -Chen et al., 2021
Week 11 (11/21)	Electromyography & PTSD	-Mckinnon et al., 2020 -Robison-Andrew et al., 2014
Critical Lit Review due		
Week 12 (11/28)	Interoception	-Garfinkel et al., 2016 (chapter in full) -Terasawa et al., 2021
Week 13 (12/5)	PRESENTATIONS	Read any 2 Keynote Articles besides your own **Group Presentations & Discussion**
Exam Period	n/a	**Keynote Article Reboot due 12/14 (5pm)** **P&E Reflection due 12/22 (5pm)**

Course timeline is subject to change. Updates will be announced in OnQ and in class.

Assignments: Overview

0) <i>About You (0%)</i> <i>Burnout Survey (0%)</i>	Week 2 (<u>optional, not anonymous</u>) Weekly (<u>optional, anonymous</u>)
1) <i>Reading Engagement Assignments (25%)</i>	Weekly (best 16 of 20+)
2) <i>Progressive Research Project (group format in steps 2-4; 50%)</i>	
1. Keynote article analysis (<i>individual submission</i> ; 10%)	Due 9/30 (Week 4) @2:30pm
2. Annotated bibliography (10%)	Due 10/28 (Week 7) @2:30pm
3. Critical literature review (10%)	Due 11/25 (Week 11) @2:30pm
4. In-class presentation (10%)	Due 12/5 (Week 13) in class
5. Keynote article reboot (<i>individual submission</i> ; 10%)	Due 12/14 @5pm
3) <i>Participation & Effort (25%)</i>	
Mid-term self-reflection (12.5%)	Due 10/21 (Week 6) @2:30pm
End-of-term self-reflection (12.5%)	Due 12/22 @5pm

Assignments: Descriptions

Reading Engagement (25%). The purpose of these assignments is to help you prepare for class by more deeply digesting the assigned reading. The articles and chapters that you will read in this course have a high difficulty level and will cover approaches that are likely unfamiliar to you. The Reading Engagement activities will guide you in identifying the critical information within the texts and analyzing the

effectiveness of the research and its presentation. The goals are twofold: to build your skill as a discerning consumer of psychological science, and to turn the reading you will be doing anyways into an opportunity to earn credit for your effort.

Each week after the first week, two of the assigned readings will be posted in OnQ using interactive software called Feedback Fruits. Inside each document, I will have posted several prompts for you to answer or follow as you read. Especially for more technical readings, prompts will be more factual or content-focused in nature (e.g., Find X piece of information in the text; What did term did the authors use to describe Y in the text?). Other prompts will lead you to consider the meta-level structure of writing in the discipline and deepen your analytical reading skills (e.g., working with a moment you found especially difficult to understand, paraphrasing the main point of a particular paragraph, etc.).

Reading Engagement is graded on effort, meaning, Feedback Fruits will automatically tally the number of prompts you answer inside the text (most weeks, there will be 2-4 prompts per reading). Note that because readings are graded on effort, you do not need to worry about using academic-sounding language; instead, use natural language that helps you remember what you said. In addition to the automated grading, I will personally read all your responses and may invite you to elaborate on your ideas in class.

There will be **20+ Reading Engagement opportunities** throughout the term (one for almost every assigned reading). Each Reading Engagement assignment done in full contributes 6.25 points (of 100) to your Reading Engagement grade, so you **only need 16 completed** assignments to get 100% in Reading Engagement.

Assigned readings themselves are posted and available throughout the term. However, I'd like to create prompts that respond flexibly to concerns and insights arising in the classroom. For this reason, Reading Engagement assignments *will open by 5:30pm on each Tuesday* before the Sunday when they are due (i.e., 24 hrs after the previous class).

Progressive Research Project (50%). This research project will be assigned and completed in a series of stages over the course of the term (5 stages, each worth 10% of your final course grade). The project begins and ends with independent work, with three group-based phases in between.

You will begin by selecting a topic from a curated list of options and reading an assigned article closely yourself. Then, together with a team of your peers, you will conduct a literature review on your chosen topic, write a brief report, and give a short presentation to the class. Coming full circle, the final stage lets you apply your new research skills and reflect on your new knowledge independently.

Whereas the weekly readings for the course expose you to a wide *breadth* of topics in psychophysiology, the purpose of this assignment is to provide a chance to explore a relevant topic in *depth*. Unlike the weekly readings, the research project also trains you to conduct literature searches autonomously, based on your interests and emerging ideas. The project has been designed in stages modeled after the approach an advanced trainee or real researcher would take when getting up to speed in a new research area. For these reasons, the project and its stages are required elements of the course.

There are many benefits to working in a group—it can be more fun, it can inspire creativity, and it mimics the collaborative approach that is a hallmark of this field. That said, there can also be drawbacks, for instance, if team members have difficulty finding synthesis in their disagreements, or if members

don't contribute equally. Several strategies are in place to mitigate these potential drawbacks, including assignment to groups based on shared interests in the topic and requirements for independent work bookending the team process (steps 1 and 5).

In most cases, each student will receive the same grade as their group members; however, I reserve the right to adjust individual grades for work submitted collectively, in the event of egregious disparities in contribution. Students with accommodations regarding group work will have the option to complete the project independently.

Project stages:

(1) *Keynote article analysis (individual submission; 10% of final grade)*. Each student ranks their preferences for six potential articles (without reading them in full), and then is assigned one article they rated as especially interesting. Articles draw from information covered in the course and apply it to a novel topic of social and/or clinical importance (e.g., social relationships, racism, empathy). The student submits a written summary of the article that conforms to a pre-existing template posted in OnQ, which is designed to build and reinforce understanding of the content of the article and of structure and forms of scientific reporting. At the end of Week 4, the student submits their written summary in OnQ as a Word document (no PDFs, please).

(2) *Annotated bibliography (10% of final grade)*. Students will be placed into groups based on the keynote article topics. Each group will conduct a literature review pursuing a topic of common interest that stems from the original keynote article. Guidance on how to conduct literature reviews will be provided in class, and groups will receive coaching on distilling their independent ideas into a unified topic or theme. Each group will submit a succinct statement (1 sentence) stating their chosen theme, and with it, a bibliography containing their favorite 8 articles (for a 4-person team; 10 for a 5-person team), with a 250-300-word summary accompanying each article. Group members are each required to be primarily responsible for 2 summaries and secondarily responsible for 2 more. They must also indicate their approval of all summaries, and student names should appear on each summary. Additional details on the assignment will be provided in Week 5. At the end of Week 7, the group submits a single Word document in OnQ.

(3) *Critical literature review (10% of final grade)*. Groups convert their annotated bibliographies *and build upon them* to co-write a **short** essay (500 words max), in APA 7 style. Each group's essay should (a) have something to say (i.e., it needs a *thesis*), and (b) contain 4-5 body paragraphs, each with a topic sentence and supporting argument/elaboration that is bolstered by cited evidence collected via literature review. Group members are each required to be primarily responsible for 1 body paragraph and secondarily responsible for 2 more. Group members are expected to contribute equally to crafting a brief introductory paragraph and the thesis of the argument. They must also indicate their approval of the essay, and the responsible students' names should appear, in order of responsibility, at the end of each paragraph (parenthetically). Additional details on the assignment will be provided in Weeks 6+, and some class time will be allotted to groupwork. At the end of Week 11, the group submits the essay as a single Word document in OnQ.

(4) *In-class presentation (10% of final grade)*. Groups convert their short essay into a brief slide presentation, which they **give in class** during Week 13 (last day of the term). Each group will

have at most 20 minutes, of which 5-10 must reserved for a Q&A/discussion with the rest of the class. Thus, it is strongly recommended that presentations consist of no more than ~8 content slides. The presentation should move beyond the critical literature review by proposing **at least one future research question** and justifying why this question is important. Groups will be evaluated on both their presentation (especially its clarity, flow of ideas, and logical connection to the future research idea) and on their responses during and facilitation of the subsequent discussion. *Group members are expected to contribute to the total effort behind the presentation and discussion, but not each person is required to present the slides per se.* A final slide, not included in the presentation, should outline each member's contribution to the process. Effective strategies for slides and presentations and additional details of the assignment will be provided in Weeks 11 and 12. On the day of the presentation, the group submits the slides in OnQ.

(5) *Keynote article reboot (individual submission; 10% of final grade).* Each student will select one other keynote article from the original 6, which was *not* the one used for Step 1. They will complete an article analysis template similar to the original keynote assignment, but elaborated with additional links to other course material. On Dec 14 (during the exam period), each student submits their summary as a Word document individually in OnQ.

Participation & Effort (25%). Your participation and effort (P&E) in the course will be evaluated at two points in the term, at approximately the middle and again at the very end. The evaluation at the end of the term will not be cumulative, meaning that Weeks 7-end are considered a blank slate. Each evaluation will count for 12.5% of your final course grade. P&E will be evaluated broadly, including attendance, verbal and nonverbal participation in class, your effort as an individual contributor to your group project, your curious and constructive participation in discussing your peer's in-class presentations. Although your Reading Engagement activities are not graded qualitatively, strong patterns involving the quality or your effort in those activities may be factored into P&E (e.g., consistent improvement, consistent absence of originality or precision, consistently missing assignments).

To help provide insight into your engagement with the course, including both independent and group work, and barriers to your engagement, you will be asked to submit a **written self-reflection** each time P&E is evaluated. The prompt for the self-reflection will be posted 7 days before it is due.

Assessment/Learning Outcomes Matrix

Course Assessment	CLO1	CLO2	CLO3	CLO4	CLO5	CLO6
Reading Engagement Assignments	X	X	X	X	X	X
Progressive Research Project	X	X	X	X		X
Participation & Effort (w/ self-reflections)					X	X

Due Date Flexibility and Lateness

At times, you may be unable to complete an assignment on time for personal reasons. To accommodate this, I have designed the course with flexibility for all students. See table below for a detailed summary, along with some explanations here:

- Submitted assignments that do not directly affect your preparedness for class (e.g., stages of the research project, Participation & Effort self-reflections) have a built-in 72-hr grace period. That is, your assignments are due on the due date listed, but will be accepted, without penalty, up to 72 hours afterwards. Additional lateness can be arranged with a 5%/day penalty for research project elements, and with additional written content for the E&E reflections.
- Weekly Reading Engagement assignments directly affect your preparedness for class, since they have been designed to deepen your comprehension of the materials we will discuss. For this reason, there is a shorter grace period until 10:30am on the day of class. After that time, written summaries (in the style of the keynote summaries) will be accepted until the end of the term (graded on a simplified scale of 60, 70, or 80 points corresponding to *check-minus*, *check*, *check-plus*). Remember that only your highest 16 of 20+ Reading Engagement scores will count toward this assessment area.

Course Assessment	When Due	Built-In Flexibility	Further Lateness
Reading Engagement Assignments	24 hrs before class (i.e., 2:30pm Sundays)	Accepted w/o penalty until 4 hrs before class (i.e., 10:30am, Mondays)	Written article analysis (following Keynote article format) accepted in lieu of missed assignments until the end of the exam period, (graded 60, 70, or 80).
Research Project Assignments	Each phase due by day and time indicated in Course Timeline	Submissions accepted w/o penalty for up to 72 hrs late (no flexibility for presentation)	Submissions accepted w/ 5% penalty for each additional day late beyond 72 hrs (e.g., lose 5% for 72.1-96 hrs late)
Participation & Effort Reflections	Due by day and time indicated in Course Timeline	Accepted w/o penalty for up to 72 hrs late	Accepted w/o penalty, but with additional, written, problem-solving about lateness

The flexibility built into this course means that “Short-Term Requests for Academic Consideration” (submitted through the FAS portal without documentation) are not needed and will not be considered. Long-term requests will be handled on a case-by-case basis if needed.

Weekly Schedule

Here is a snapshot of a typical weekly schedule:

Sundays @2:30pm (before relevant class) – Reading Engagement assignments due

Mondays @2:30-5:30pm – class time, usually in 3 parts with short breaks between; grace period for Reading Engagement and any previous week’s Friday deadlines ends at 2:30

Tuesdays @5:30pm – Reading Engagement activities open by this time

Fridays @2:30pm – some weeks, a deadline for other submitted assignments; note, these are due on the Friday *after* the class with which it appears on the Timeline above

Grading Scheme

Grading in this course is designed to reward your effort, promote independent discovery, and encourage your growth as scholars. All components of this course will receive numerical percentage marks. To simplify grading for submitted assignments (specifically, Research Project assignments), scores will be awarded using these heuristics:

Grade Range	Significance	Comments/Description
0	Not submitted	You will not get any points if you do not submit anything. If you can, it is always better to submit something than nothing.
60-76	Submitted, unfinished	You submitted something. Work will score in this range if it is partially complete or only partly addresses the assignment in form or content. Examples would include an annotated bibliography that contains fewer than the required number of entries or a piece of writing that is off-topic or doesn't meet basic length or formatting requirements. Additionally, writing that is difficult to understand due to excessive grammatical or proofreading errors may contribute to scores in this range.
77-82	Submitted, complete	This work is finished and addresses the assignment in both form and content. An example would include a legible piece of writing, in the correct format, on the correct topic, addressing the writing prompt(s), <i>regardless of what it says</i> . In other words, putting in the effort to <i>do the work</i> is enough to perform solidly on submitted assignments. The intention is to reward effort and give you license to experiment take on tough concepts without concern for whether your ideas are "right."
83-89	Strong	This work exceeds the level expected for this course in one or more dimensions (e.g., creativity/originality, sophistication of interpretations, attention to detail, lucidity of writing/communication), or, it demonstrates significant improvement from a student's/group's previous work.
90+	Exceptional	This work exceeds expected or prior levels in all/almost all dimensions (e.g., creativity/originality, sophistication of interpretations, attention to detail, lucidity of writing/communication).

The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen's Official Grade Conversion Scale:

Queen's Official Grade Conversion Scale

Grade	Numerical Course
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	Average (Range)
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59
D	53-56
D-	50-52
F	49 and below

Academic Integrity

Integrity is a cornerstone of academic practice. This course has been designed to reward creativity, effort, and independent thought. Most of the assignments will be difficult or impossible to complete using writing by someone not taking the course. Assignments completed with your classmate's words will be easy for me to spot. I encourage you to do your own work when working individually, and collaborate closely when working together. Take intellectual risk or two, and if your effort is showing, the grading scheme should be kind to you.

Accommodations for Disabilities

Queen's University is committed to achieving full accessibility for people with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all their academic activities. The Senate Policy for Accommodations for Students with Disabilities was approved at [Senate in November 2016](#). If you are a student with a disability and think you may need academic accommodations, you are strongly encouraged to contact the **Queen's Student Accessibility Services (QSAS)** and register as early as possible. For more information, including important deadlines, please visit the [QSAS website](#).

Extenuating Circumstances

Academic consideration is a process for the university community to provide a compassionate response to assist students experiencing unforeseen, short-term extenuating circumstances that may impact or impede a student's ability to complete their academics. This may include but is not limited to:

- Short-term physical or mental health issues (e.g., stomach flu, pneumonia, COVID diagnosis, vaccination, etc.)
- Responses to traumatic events (e.g., Death of a loved one, divorce, sexual assault, social injustice, etc.)
- Requirements by law or public health authorities (e.g., court date, isolation due to COVID exposure, etc.)

Queen's University is committed to providing academic consideration to students experiencing extenuating circumstances. For more information, please see the [Senate Policy on Academic Consideration for Students in Extenuating Circumstances](#).

Arts and Science undergraduate students can find the Faculty of Arts and Science protocol and the [portal where a request can be submitted](#). Students in other Faculties and Schools who are enrolled in this course should refer to the protocol for their home Faculty. Each Faculty has developed a protocol to provide a consistent and equitable approach in dealing with requests for academic consideration for students facing extenuating circumstances.

In this course, built-in grace periods obviate the need for using this mechanism. Please speak with me if you believe additional considerations are needed for a compassionate reason.