

PSYCH 403

ADVANCED PERCEPTION

Blog Post Assignments

Learning Outcomes

In completing this project, you will:

- practice your scientific research skills
- apply your writing and critical thinking
- enhance your ability to perform [knowledge mobilization](#)
- develop your ability to explain the content of scientific journal articles to a general audience
- optionally, apply an AI chatbot to this task, and evaluate its accuracy and usefulness

These are [important abilities](#) that are highly valued by employers and post-graduate schools.

Requirements

To complete each assignment, you will search for a peer-reviewed primary research journal article on a topic in sensation or perception, published in 2020 to 2024. (Choose an experimental paper; do not use a review paper--including a systematic review--or a meta-analysis.) Then you will write a blog post (including a relevant decorative image with URL to the source) to summarize the article in a way that is understandable to the general public, and explain its relevance or importance. Alternatively, you may use an AI chatbot to write the actual blog post. However, you will then evaluate the accuracy of the AI's output.

Research Article

It is strongly recommended that you use the [PSYInfo®](#) database to find an appropriate article (here is a [brief tutorial](#)). The UAlberta Library's [Psychology subject guide](#) can help step you through the research process.

Some examples of topics in perception include:

- visual perception (e.g., colour perception, motion perception, depth perception, etc.), visual illusions
- auditory perception or music perception
- tactile or haptic perception
- gustatory or olfactory perception
- time perception
- face perception
- synesthesia or multisensory perception
- perception and art
- neuromagic

Although some of these topics are presented in lecture, not all of them are. Your topic does not have to relate directly to course content, but doing so may help you to learn and understand course material better.

Another approach is to browse through scientific journals that only publish articles on topics in perception:

- [Perception, i-Perception, Journal of Vision, Vision Research, Visual Neuroscience, Journal of Illusion](#)
- [ACM Transactions on Applied Perception, Chemical Senses, Music Perception](#)

Some journals publish articles on a range of topics, including perception (be careful when choosing):

- [Attention, Perception, & Psychophysics, Perceptual and Motor Skills](#)
- [Journal of Experimental Psychology: Human Perception and Performance](#)

Some journals publish on a diverse array of topics in science, and may include articles on perception:

- [Nature, Science, PLOS One, Psychological Science, Frontiers in Psychology](#)

(To access full articles, you may need to use the [UAlberta Library website](#).)

Blog Post

After selecting a relevant article, you will then write a blog-style post that summarizes the findings of the research article and explains its relevance to a general audience. This is not intended to be a mini-term paper! Below are some examples of blogs posts written on perception-related topics (listed from best to worst):

- [Scientific American Illusion Chasers: Lions See These Illusions the Same Way You Do](#) [more posts here]
- [Mind Hacks: Values, taste perception and psychological blind spots](#) [more posts here]
- [Psychology Today: How Your Body Changes Your Visual Perception as You Walk](#)
- [Brain's Idea: Why ear plugs are great for clubbing and concerts](#)
- [Why Aren't You Studying? #TheDress Explained](#)

Another way to think of your blog post is like a press release. In fact, organizations like the Association for Psychological Science, the American Association for the Advancement of Science, and publishers like Frontiers Media issue press releases to highlight new papers appearing in their journals. Independent websites like ScienceDaily also write short press-release-like articles.

- [APS: Touting Flavor Before Nutrition Encourages Healthy Eating](#)
- [AAAS: Synesthesia's mysterious 'mingling of the senses' may result from hyperconnected neurons](#)
- [Eurekalert! Power of illusion can help with learning new movements](#)
- [Frontiers: Our sense of smell changes the colors we see, show scientists](#)
- [ScienceDaily: Study finds perception of time linked to heartbeat](#)

For more information on this approach, including basic content requirements and structuring the information you present, see:

- [Purdue Online Writing Lab: Writing Press Releases](#)
- [Writing@CSI: Press Releases](#)

You can determine the readability of your blog post by using a [readability calculator](#), or Microsoft Word's [built-in tool](#). Anything above 12 is aimed at an audience that has some college or university education.

Format

Each assignment must be submitted online using [eClass](#). Answers to each assignment must not exceed **500 words**. Use complete sentences; do not use point form. Include a relevant decorative image and give an attribution (e.g., URL) for it. It is your responsibility to ensure that your assignment has been properly submitted.

APA style citations and references to your primary sources are required. This is an example of an APA style in-text citation: (Hershlag et al., 1998). This is an example of an APA style reference:

Hershlag, N., Hurley, I., & Woodward, J. (1998). A simple method to demonstrate the enzymatic production of hydrogen from sugar. *Journal of Chemical Education*, 75(10), 1270-1274.
<https://doi.org/10.1021/ed075p1270>

Here are some free online APA style resources:

- the American Psychological Association's [APA style website](#)
- the [Purdue Online Writing Lab](#)'s overview and information on APA formatting and style
- the University of Alberta Library's [APA Citation Style subject guide](#)

Most aspects of APA formatting (e.g., fonts, spacing, margins, etc.) **do not apply** to this assignment--use APA style only for citations and references. Do not use direct quotes from your source.

Due Dates & Late Policy

- **Blog Post Assignment #1** (10 marks, worth 5%) -- due **Tuesday, February 6** at 12:20 p.m.
- **Blog Post Assignment #2** (10 marks, worth 5%) -- due **Tuesday, April 2** at 12:20 p.m.

Each assignment must be submitted by the **end of class time** (not at midnight) on the day in which it is due, or it will be considered late. Late assignments will lose 1 mark per 24-hour period, starting immediately after the due date & time. That is, if you submit your assignment 1 minute late, you will lose 1 mark. If you submit your assignment 23 hours and 59 minutes late, you will still lose only 1 mark. But if you submit your assignment 24 hours and 1 minute late, you will lose 2 marks. If you edit or make any changes to your eClass submission in any way after the due date & time, you will receive a **late penalty**.

Do **not** email assignments to the instructor or the TA. Late (or early) assignments may be submitted via eClass. However, after 6 days past the due date, you will no longer be able to submit your assignment online. If you have exceptional extenuating circumstances (e.g., you cannot submit your assignment because you have [alien hand syndrome](#), or the [Time Variance Authority](#) pruned your timeline from existence), please contact the instructor.

Scoring Rubric for Blog Post

Each post is graded out of 10 marks: 2 marks for APA style and presentation, and 8 marks for content.

APA Style	
Poor	Excellent
APA style errors in citation and/or reference.	No APA style errors in citation or reference.
0.0	1.0

Presentation	
Poor	Excellent
Many spelling or grammatical errors that make it difficult to understand the content. Jarring transitions between paragraphs.	No spelling or grammatical errors. Writing flows naturally. Relevant decorative image has been included.
0.0	1.0

Content				
No Credit	Limited	Underdeveloped	Satisfactory	Exceptional
Post does not relate to sensation or perception, or source was published before 2018, or no post submitted.	Post summarizes source poorly; findings are misinterpreted; explanations and relevance/ importance to a general audience are unclear.	Post summarizes source adequately, but findings are misinterpreted or explanations and relevance/ importance to a general audience are unclear.	Post summarizes source adequately; findings and explanations are clear. But relevance/ importance to a general audience is unclear.	Post summarizes source well; findings and explanations are clear. Relevance/ importance to a general audience is evident.
0.0	2.0	4.0	6.0	8.0

Technical Support

“Technical problems” are not accepted as an excuse for late or incomplete assignments. eClass Support has [eClass for Students](#) tutorials, ranging from System Setup to Submitting Assignments. For help with eClass, see the [eClass support knowledgebase](#) or contact [eClass support](#). For other IT problems, contact [IST](#).

AI Alternative

As an alternative assignment, you may use a large-language model chatbot like OpenAI's [ChatGPT](#), Microsoft's [Copilot](#), Anthropic's [Claude](#), Google's [Bard](#), etc. to summarize and write the blog post.

- use prompts to generate a response from the AI; you may have to try a few times
- you will have to explicitly tell it to include APA style citations and references, the maximum word count, the style of writing, etc.
- submit the blog post on eClass (you will have to find and include a decorative image yourself)
- include "[AI]" at the end of the subject line
- also include all prompts that you gave the chatbot
- compare the AI's output to the original article, listing any errors or "[hallucinations](#)"
- calculate [readability](#) and give the Gunning Fox index, and relate this to the goal of explaining the source to a general audience
- evaluate the AI's blog post by applying the Scoring Rubric for Blog Post to it; assess the quality of the summary given, based on your reading of the article and knowledge of perception

Scoring Rubric (AI Alternative)

If you choose the AI alternative, your work will be evaluated using this scoring rubric.

APA Style	
Poor	Excellent
Student did not detect APA style errors in the AI's citation and/or reference. Or prompt given to AI did not specify APA style for citation and reference.	Student listed and explained all of the APA style errors in the AI's citation and/or reference. Or, the AI's citations and references were all correct.
0.0	1.0

Presentation	
Poor	Excellent
Student did not prompt the AI with correct format or style. Student did not evaluate the presentation of the AI's blog post. No readability score was calculated.	Student correctly prompted and evaluated the format and style of the AI's blog post. Readability score was given and interpreted with implications for a general audience.
0.0	1.0

Content				
No Credit	Limited	Underdeveloped	Satisfactory	Exceptional
Student chose article that did not relate to sensation or perception, or source was published before 2020, or no post submitted.	Student missed all errors and hallucinations made by the AI. Did not evaluate the AI's blog post using Scoring Rubric for Blog Post.	Student missed major errors and hallucinations made by the AI. Inadequate evaluation of the AI's summary of the article. Student provided few critical comments, but lacked depth or clarity.	Student effectively identified and discussed major errors and hallucinations made by the AI. Good evaluation of the AI's summary and the level of detail given. Several critical comments given that show an understanding of perception.	Student explained all errors and hallucinations made by the AI. Provided a nuanced and insightful critique of the AI's summary, including correct information. Demonstrates an excellent grasp and understanding of perception.
0.0	2.0	4.0	6.0	8.0

Here's an example:

Prompt:

"Write a press-release style blog post about a primary research article on perception that was published between 2020 and 2024. It must be less than 300 words. Include one APA style citation in the article, and provide an APA style reference to the article at the end."

Title: An Important Study on Perception [AI]

A groundbreaking study (Smith et al., 2022) on perception has been published in the journal "Science" that sheds new light on how the brain processes visual information. The study, conducted by a team of researchers from the University of California, Berkeley, and the California Institute of Technology, used cutting-edge neuroimaging techniques to investigate the neural mechanisms underlying perception.

The study found that the brain uses a combination of bottom-up and top-down processing to construct our visual experiences. Bottom-up processing refers to the way in which the brain automatically responds to the raw sensory information it receives, such as light and color. Top-down processing, on the other hand, refers to the way in which the brain uses prior knowledge and expectations to interpret the sensory information it receives.

The researchers discovered that the brain's visual cortex, the part of the brain responsible for processing visual information, is divided into two main pathways. The first pathway, known as the ventral stream, is responsible for bottom-up processing and is responsible for identifying objects and their features. The second pathway, known as the dorsal stream, is responsible for top-down processing and is responsible for determining the location of objects in space.

The study also found that these two pathways interact in complex ways, with the ventral stream sending information to the dorsal stream, and vice versa. This interaction allows the brain to construct a complete and coherent visual experience.

The findings of this study have important implications for our understanding of perception and the neural mechanisms underlying it. It also has practical applications in the field of artificial intelligence and computer vision, as the study's insights can help inform the development of more advanced computer vision systems.

Reference: Smith, J., Brown, L., Rodriguez, L., & Green, J. (2022). Neural mechanisms underlying visual perception. *Science*, 356(6345), 1234-1238.

Errors and Hallucinations:

- This source does not exist-- it hallucinated the entire article.
- The researchers don't seem to exist.
- The dorsal stream is also a bottom-up pathway, not a top-down one.

Evaluation:

APA Style: 0.0. It has most of the correct elements, but is missing the DOI; the source does not actually exist.

Presentation: 1.0. Writing flows well, and is grammatical. But has a high Gunning-Fox index of 13.42, so it requires some post-secondary education to understand it; this means that it is not understandable by a general audience.

Content: 1.0. Some information presented is correct (the ventral stream is a bottom-up pathway), but other information is wrong (the dorsal stream is not a top-down pathway). Information presented is not very specific in terms of what the researchers apparently did. It did not explain or elaborate on what the "important implications" or "practical applications" are.

The Fine Print

The University of Alberta is committed to the highest standards of [academic integrity](#) and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the [Code of Student Behaviour](#) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence.

Academic dishonesty is a serious offence and can result in suspension or expulsion from the University. These resources from Student Conduct and Accountability, and the University of Alberta Library can help:

- [Academic Integrity: Introduction to Academic Culture](#) - videos on citing, quoting, summarizing, and paraphrasing
- [How to Avoid Plagiarism](#) - plagiarism definition, and tips for avoiding plagiarism
- [Foundational Research Tutorials: Plagiarism](#) - video introduction to plagiarism and citing
- [Citing, Quoting, Paraphrasing & Summarizing](#) - how-to document that compares and contrasts them
- [Don't Do It \(Cheating & Plagiarism\)](#) - Faculty of Science document on academic misconduct and resulting penalties

Based on Metz, M. (2018). Writing for comprehension, communication, and community: Blogging in the advanced psychology classroom. In T. L. Kuther (Ed.), *Integrating writing into the college classroom: Strategies for promoting student skills* (pp. 198-217). <https://teachpsych.org/ebooks/integratingwriting>

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