Teaching Evaluations

• Lecture and Lab together
• Incorporated into future classes – your ideas and suggestions do matter. For example:
  – Less emphasis on exams
  – More preparation for midterm exams
  – Shortened midterm exams
• http://eval.ctlt.ubc.ca
• Confidential and anonymous; I receive your comments after the course grades are submitted. But please be constructive and polite…
• You can access the aggregate data
  – Student Evaluation of Teaching website http://teacheval.ubc.ca
Why study behavioral neuroscience?

- Curiosity
- “basic” or “fundamental” research is a long-term investment, which can yield revolutionary advances and unexpected benefits!

http://www.goldengooseaward.org/
Why study behavioral neuroscience?

• To understand “normal” behavior and brain function
Why study behavioral neuroscience?

• To improve human health
  – Diet, exercise, Alzheimer’s disease
  – Treatments for depression
  – Pair bonding / social attachment and autism

http://www.youtube.com/watch?v=5ddIKQwDIe8

https://www.youtube.com/watch?v=Iko7UXC-M94&list=PLA1D7BD1295076BB1&index=1

• More generally, all new drug candidates must succeed in animal trials before human clinical trials, without exception.
  • For Alzheimer’s disease, depression, autism, schizophrenia, strokes, cancer, AIDS, diabetes, heart disease, etc.
Specific course goals

• Understand how to study behavioral neuroscience using the scientific method
  – inspire curiosity about the brain and behavior

• Encourage critical and creative thinking
  – Strengths of a study?
  – Weaknesses / limitations of a study?
  – What is not known? What experiments should be done next?

• Find & critically read original scientific literature
  – Web of Science, PubMed, Google Scholar

• Improve oral and written communication
Science is a process

• Science is a way of trying to understand the natural world. Science is **not** a list of facts to memorize

• Science is a process of human inquiry
  • Systematic approach – controls, random assignment, “blind” etc.
  • Skepticism – try to refute hypotheses
  • Dynamic – old ideas are re-evaluated in light of new data
  • Uncertainty – no single study is perfect; converging lines of evidence decrease uncertainty and increase confidence

• Our society needs people in all walks of life that can interpret and critically evaluate the results of scientific studies
“Put a little science in your life”

- Brian Greene, physicist and writer
- *NY Times*

- “Science is a way of life. Science is the process that takes us from confusion to understanding in a manner that’s precise, predictive and reliable — a transformation, for those lucky enough to experience it, that is empowering and emotional.”
- “Science is the greatest of all adventure stories, one that’s been unfolding for thousands of years as we have sought to understand ourselves and our surroundings.”
- “We must embark on a cultural shift that places science in its rightful place alongside music, art and literature as an indispensable part of what makes life worth living.”
“How do I put a little science in my life?”

http://www.guardian.co.uk/science
http://news.sciencemag.org/sciencenow/
http://www.ted.com/
http://www.cbc.ca/quirks/
http://sciencefriday.com/

https://www.uro ubc.com/
http://psa.psych.ubc.ca/
https://www.facebook.com/UBC-Neuroscience-Club-1684472088493665/
http://murch.ubc.ca/

Volunteer
Directed Studies
Work Learn
Summer Research etc.
Physical exercise neuroprotects ovarioctomized 3xTg-AD mice through BDNF mechanisms

Yoelvis García-Mesa, Helios Pareja-Galeano, Vicent Bonet-Costa, Susana Revilla, M. Carmen Gómez-Cabrera, Juan Gambini, Lydia Giménez-Llort, Rosa Cristófol, José Viña, Coral Sanfeliu

https://www.youtube.com/watch?v=0Rnq1NpHdmw&sns=em
THE MISTRUST OF SCIENCE

By Atul Gawande, JUNE 10, 2016

too. Science is not a major or a career. It is a commitment to a systematic way of thinking, an allegiance to a way of building knowledge and explaining the universe through testing and factual observation. The 2010 and found some deeply alarming trends. Despite increasing education levels, the public’s trust in the scientific community has been decreasing. This is particularly true among conservatives, even educated
N. Volkow: I’ve always been interested in understanding how our brain works. What is it that makes us human? Why we respond, each one of us differently, to the same situation? How do we figure things out? I’m very curious and always had that need to understand how processes work, and the most challenging one is, of course, our brain.

I think that neuroscience in 15, 20 years will be in areas that we, at this point, are barely scratching the surface of.
• What is the most important thing you learned in this class?

• What is the most memorable (but not necessarily important) thing you learned in this class?

• What would you still like to learn about behavioral neuroscience? (I can tell Psyc 370 instructor.)

• What are your career goals?