

COURSE OUTLINE
PSYCH4J03 INQUIRY IN PSYCHOLOGY – DEVELOPMENT

Instructor: Dr. Laurel Trainor PNB 309
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Course TA: Rayna Friendly friendr@mcmaster.ca 905-525-9140 x24811

Location: BSB/238

Time: Wednesdays 11:30–2:30

Office hours: By appointment

Course Objectives. Students will engage in self-directed research, critical thinking and problem solving in the evaluation of existing research and the design of new research in the area of developmental psychology. Through assignments students will gain experience with the basic principles of scientific research including the scientific method, experimental design and hypothesis testing, data analysis and interpretation, and reporting scientific findings. Students will strengthen their writing and oral presentation skills, their ability to evaluate the sources and content of information, their ability to engage in problem solving and critical thinking, and their ability to evaluate the work of their peers. In the first part of the course we will evaluate the idea of critical or sensitive periods in development through critical evaluation of 8 papers from a special issue on critical periods in *Developmental Psychobiology* (2005), Volume 46. In the second part of the course students will work in groups to develop a grant proposal that addresses an important question of their choice in this domain.

Course Schedule (subject to revision)

All readings are from *Developmental Psychobiology*, 46, 2005. They are available for download from the course website, which can be accessed from the Psychology, Neuroscience & Behaviour Department webpage (www.science.mcmaster.ca/psychology/undergraduate.html).

January 7: Introduction to inquiry and sensitive periods in development

January 14: Sensitive periods in low-level vision

Lewis, T.L. & Maurer, D. Multiple sensitive periods in human visual development: Evidence from visually deprived children.

Murphy, K.M., Beston, B.R., Boley, P.M., & Jones, D. G. Development of human visual cortex: A balance between excitatory and inhibitory plasticity mechanisms.

January 21: Effects of brain lesions and visual deprivation

De Schonen, S., Mancini, J., Camps, R., Maes, E., & Laurent, A. Early brain lesions and face-processing development.

Sathian, K. Visual cortical activity during tactile perception in the sighted and the visually deprived.

January 28: Language and music

Werker, J.F., & Tees, R.C. Speech perception as a window for understanding plasticity and commitment in language systems of the brain.

Trainor, L.J. Are there critical periods for musical development?

February 4: Plasticity: Cochlear implants and learning in adults with amblyopia

Harrison, R.V., Gordon, K.A., Mount, R.J. Is there a critical period for cochlear implantation in congenitally deaf children? Analyses of hearing and speech perception performance after implantation.

Levi, D.M. Perceptual learning in adults with amblyopia: A reevaluation of critical periods in human vision.

February 11: Presentation work time

February 25: Presentation work time

March 4: Presentation work time

March 11: Presentations

March 18: Presentations

March 25: Presentations

April 1: Wrap up

Academic Dishonesty Policy Reminder

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g., the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at http://www.mcmaster.ca/senate/academic/ac_integrity.htm.

Evaluation and Due Dates

Late assignments will not be accepted unless prior arrangements have been made with the instructor.

- 25% Attendance and participation.** Note that for high marks, comments and questions must make an intellectual contribution.
- 15% Sensitive Period Evaluation.** Due January 21, 28 or February 4, depending on the topic.
- 5% Progress Report on Grant Proposal.** Due February 25.
- 20% Written Grant Proposal.** Due the Friday before your oral presentation.
- 20% Oral Presentation of Grant Proposal.** One of March 11, 18 or 25 (assigned in class).
- 15% Peer Evaluation of Grant Proposal.** Due April 1.

McMaster's Grading Scale

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|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 90–100 | 85–89 | 80–84 | 77–79 | 73–76 | 70–72 | 67–69 | 63–66 | 60–62 | 57–59 | 53–56 | 50–52 | 0–49 |
| A+ | A | A– | B+ | B | B– | C+ | C | C– | D+ | D | D– | F |

The instructor reserves the right to adjust the final marks up or down, on an individual basis, in the light of special circumstances and/or the individual's overall performance in the course.