

SYLLABUS – PSY 493-005 Issues in Psychology (W)  
**NEUROSCIENCE OF CHILD DEVELOPMENT**

Mon & Weds, 10:20-11:40, Ackers Hall 140

**Instructor**

Dr Melissa Johnson

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**Office hours by appointment – please feel free to email me to arrange. Just because I don't have posted office hours, doesn't mean I don't want to see you – I do, it's just easier to arrange on a case-by-case basis. We can meet in Ackers study lounge by classroom.**

**Course overview**

This writing (W) course will examine brain and mind development during the first five years of a child's life, including in-utero. It will focus primarily on prenatal influences on brain development, and postnatal brain development as it corresponds to sensory and mental function. For ease of organization and class discussion of topics, it is organized into three modules:

Module 1

1. Nature and Nurture (Life in the womb): nature and nurture; prenatal brain development, prenatal influences on brain development; brain and birth.

Module 2

2. The senses (Pre- and post-natal development): Touch, taste, smell, vestibular, hearing, vision.

Module 3

3. Cognitive functions (The magic of age 4): Motor, intelligence; memory; socio-emotional; Theory of Mind; language.

**By the end of the course:**

Have a good understanding of how the brain develops and how this impacts a developing fetus/baby/infant/child: There is a heavy focus on real-life, what they can do (or prefer) and why. Students say the course will be useful to them in their life.

Understand the process of brain development from its basic stages of neural development to the functional development of different regions. You will appreciate the relative influences of nature and nurture on sensory and cognitive development, and how human brain development is in many ways a form of 'mini-evolution'.

You hopefully will be a better writer and appreciate the importance of trying to write for your reader. You will hopefully also have an appreciation for the power of planning an essay.

You will appreciate the importance of completing work on time and attending and contributing to class.

**Recommended course text**

**Eliot, L. “What’s going on in there: How the Brain and Mind develop in the first five years of life” (2000) Bantam Books, ISBN: 0553-37825-2**

This book is written by a behavioral neuroscientist who is also a parent - it is not a textbook but rather a parenting/popular psychology text. It is written in a style for a parent, however it has great value (and is scientifically sound) and provides an easily digestible discussion on complex developmental brain science from a neuroscientist’s perspective. I hope you will learn much about good writing from reading this book. The topics of lectures (see course schedule) corresponds to chapters in this text, and the lecture material will focus (and expand) upon information contained in the book.

**Additional readings**

For each lecture, there may be additional readings (empirical papers) that will be on the D2L site for the course. The number of additional readings will vary per lecture, but should be between 1-3 (depending on their length/level of complexity, etc.). **You are expected to read these papers.** Given they are on topics based on a scientist’s topic of study (i.e., written by experts in their respective fields) they go into a level of detail often beyond that covered in class. Please don’t be intimidated by this—you don’t need to try and understand or memorize all of it (try and get the gist). **You are also encouraged to go beyond the additional readings sent to you, and to independently find other relevant articles (particularly on topics that interest you, or that you choose to write an essay on).** One way to do this is to do a literature search (i.e., on PubMed, Web of Science, Google) and/or to read other papers in the reference section of the papers you have been given (or other papers cited in the recommended course book ‘What’s going on in there’ by Lise Eliot).

**Course Requirements**

- Read the accompanying chapter in the course book, and readings/lecture handouts/videos on D2L for each lecture
- Attend lectures and tutorials
- Complete the quiz at the end of each module
- Complete assignments on time (email me ahead of time if any delays, or email me your assignment if issue with submission on D2L).
- Excused absence from class -email me before class (not after) otherwise you’re considered absent.
- Any questions/queries, email me.
- High grades requires independent reading (finding relevant articles, critical thinking).

**75% of your final grade is based on your writing** (assignments, graded writing, written exams). This is across 7 writings total, throughout the course.

Lectures, tutorials, videos, group discussions, reading each others’ writing, quizzes.

Student engagement counts (complete course requirements when due; attend and contribute to class).

**Class schedule**

Graded assignments in red

- M 1/13 Introductions – How to read a paper –reading nature/nurture.
- W 1/15 Nature vs Nurture
- M 1/20 *no class – Labor day*
- W 1/22 ‘Three Identical Strangers’ video watch – *assignment set.*
- M 1/27 *no class (surgery) – complete assignment*
- W 1/29 Biology of Prenatal Brain Development
- Friday 1/31 Nature OR Nurture assignment due by 11:59 pm**
- M 2/3 Prenatal influences on the brain
- W 2/5 How birth affects the brain. – *Graded writing 1 given*
- M 2/10 Tutorial 1– Writing for your reader, Chicago School videos; my ABA essay; effective beginning and final paragraphs; transitions.
- W 2/12 Tutorial 2– Grading student ‘Three Identical Strangers’ assignments according to grading rubric; reading homework class discussion
- Friday 2/14 Quiz 1 due**
- M 2/17 Somatosensory development – *Interested science writing given*
- W 2/19 Olfactory development
- Friday 2/21 Graded writing 1 due by 11:59 pm**
- M 2/24 Taste and food preference (Guest lecture)
- W 2/26 Vestibular development
- M 3/3 and W 3/5 – *no class – SPRING BREAK*
- M 3/10 Auditory system development
- W 3/12 Visual system development – *Graded writing 2 given*
- Friday 3/14 Quiz 2 and Interested science writing due by 11:59 pm**
- M 3/ 17 Tutorial 3 – *Question picking, planning an essay, grading; general graded writing feedback*
- W 3/19 Motor development
- Friday 3/21 Revised graded writing 1 (optional) due by 11:59 pm**
- M 3/24 **EXAM 1 – Modules 1 & 2** Questions and essay plan (in class)
- W 3/26 **EXAM 1** – Write essay (in class)
- M 3/31 Intelligence
- W 4/2 Development of memory
- M 4/7 Social-emotional development.
- W 4/9 Theory of mind (no chapter in book)
- Friday 4/11 Graded writing 2 due by 11:59 pm**
- M 4/14 Language and speech
- W 4/16 Tutorial 4– *General exam essay feedback, and prep.*
- Friday 4/18 Quiz 3 due**
- M 4/21 **EXAM 2 – Module 3** Questions and essay plan (in class)
- W 4/23 **EXAM 2** – Write essay (in class)

Module 1

Module 2

Module 3

M 4/28 and W 4/30 -- no class -- EXAM WEEK

*I have RCPD accommodation and some classes may be delivered virtually (via pre-recorded lectures on D2L) which may be announced short-notice (please check your email by 9 am before coming to class – if going virtual I will have emailed by 9 am that day) – if this happens we won't be missing class content so class is still on but available to view. This does not count as me canceling class.*

### Grade boundaries

Whenever I grade written work, I give a percentage (e.g., 88%), which corresponds to a grade (i.e., 3.5). Quizzes will give you a % score.

93+%= 4.0  
87-92%=3.5  
80-86% =3.0  
73-79%=2.5  
67-72%= 2.0  
62-66% =1.5  
56-61% =1.0  
<55% =fail

### What contributes to your final grade

FIRST HALF OF COURSE --

SECOND HALF OF COURSE --

5%	Nature OR nurture 1/31	15%	Graded writing 2 4/11
15%	Graded writing 1 (feedback provided) 2/21	10%	Exam 2 4/21 & 4/23
5%	Interested science writer^ 3/14	5%	Quizzes (Mod 3) 4/18
15%	Module 1 revised ** 3/21	10%	Engagement^
10%	Quizzes (Mods 1 & 2) 2/14 & 3/24		(Meeting deadlines - 5%^)
			(Class engagement -5%^)

^100, 93, 87, 80, 67, 56, 0 % score options

\*\*If you don't resubmit your Module 1 assignment, your mod 1 rev score will be the same as before. If you do, your revised score will not reduce, but it can stay the same, or go up by a little (there's no penalty for not resubmitting, nor resubmitting, **unless you do something spectacular, you shouldn't expect to change your original grade by more than a couple of % points**).

### Graded writing assignment details

For **Graded writing 1, graded writing 1 revised (optional) and graded writing 2**. Word limit = **1000 words**. **Write to a parent reader** (imagine they are a jury and you are presenting a case) - don't dumb down your content—I want to see content, find strong evidence to support, and acknowledge and deal appropriately with counter evidence, critical thinking, walk your reader through, engage your reader, unpack; organize your

content; strong intro and conclusion. References required (don't contribute to word count, APA format).

For **Nature OR nurture assignment** Word limit = **500 words**. **Write to your classmates** (peers). (imagine they are a jury and you are presenting a case) - don't dumb down your content—I want to see you selecting relevant topics, focus on the prompt, find independent evidence to support, critical thinking, walk your reader through, engage your reader, unpack; organize your content; strong intro and conclusion. References required (don't contribute to word count, APA format).

For **Interested science writing assignment** Word limit = **400 words**. You should imagine you are a **science writer in a scientific blog/science magazine**. Choose any topic or 'factoid' you found most fascinating in the course so far (e.g., didn't know a fetus can...) and convey this to a science reader (detail the fact or topic/content that fascinated you and independent thinking), as if you were writing for a science magazine. Translate why it got you thinking AND try and get your reader thinking if you can. This is an exercise in writing for your reader and capturing their interest, explaining content, and critical thinking (rather than the topic you choose per se). Title should be the fact you are discussing. References required (don't contribute to word count, APA format).

### **For all writing assignments**

Try and include independent reading (as many as you can, empirical articles) and a reference section (n.b. the hierarchy of evidence). The reference section is not included in the word count.

For graded writing you will get a score breakdown for content and writing (your scores is composed 70%=Content, 30% writing). Become familiar with the grading rubric which you will receive back as feedback. You will receive grading rubric feedback sheets for all the aforementioned assignments.

### **Exam format**

Each exam requires two classes/a week (Monday & Wednesday):

**Monday:** Questions seen, course book allowed (no other class material). Plan your essay, plan for any question you might write your exam essay on (more than one plan is fine). Plans can be in any formats; notes, diagrams, text. Return your plan at the end, a scan will be emailed to you that day (you may work on your essay plan in your free time). The plan contributes 30% to your exam score. I'm looking for selected content and organization/planning.

**Wednesday:** No course book (or other materials) allowed. Your original plan will be returned to you and you write your essay (pen and paper). Write as a regular essay for an instructor (no references required but you should still try and include required and wider

reading generally). The essay contributes 70% to your exam score. I'm looking for discussion of content.

### **During the course / D2L**

**All course material (aside from the course book) is on D2L.**

The [D2L page](#) is organized like the course into three modules. **Modules and assignments will become visible to you as we progress through the course.** The D2L page appears like this:

[Overview](#): Syllabus

[Course schedule](#): see Full schedule tab for all assignment deadlines

[Grading rubric](#): Really important, please refer to for all assignments

[Writing materials](#): Additional resources for effective writing, guides and tips

[Tutorials](#): Materials to support our 4 tutorials, e.g., Chicago School videos, ABA essay, handouts and reading for tutorials – focus on Tutorials on writing.

[Assignment details](#): Includes grading rubric. Graded writing questions, requirements, word counts, etc. There is a **submission portal** for all of the written assignments (except the in-class exams) see in Assessments> Assignments tab on D2L.

[Module 1](#): Lecture handouts, required or suggested readings, videos, homework

[Module 2](#): Lecture handouts, required or suggested readings, videos, homework

[Module 3](#): Lecture handouts, required or suggested readings, videos, homework

Quizzes (one per module) will be available on D2L, see in Assessments> Quizzes tab. They have ~10 questions each, timed at 10 minutes (one attempt). Quizzes will remain visible and open to retakes on D2L for revision purposes but scores aside from original attempt do not count. Questions and answer orders are randomized between students to prevent team-taking.

### **Student engagement**

You are expected to attend and pay attention in class (please mute cell phones, refrain from social networking, etc.) and not disrupt the learning environment (or face ejection from a class). You are also responsible for getting yourself 'up to speed' on any classes you miss, and to contribute to class discussion. Your grade for engagement is based on:

- **Complete assignments on time**
- **Attend lectures**
- **Unexcused absences are penalized (email me before NOT after class to excuse; you may have three excused absences without penalty).**
- **Contribute to class discussion**

If you are ill, I would prefer you miss a lecture than jeopardize the health of your fellow students (and me). I am happy to meet with you individually to go over any lecture material you miss (but not if you make a habit of it!). Just email me before class.

*General note to students (not just for this class, but for all your classes):* When emailing, it is good etiquette to address any professor as ‘Dear Prof x’) and to include a brief, meaningful title to your email (i.e., unable to attend, request to meet, request for materials, etc.).

Late submissions for assignments will be penalized after a 6-hr grace period after the deadline, at the Instructors discretion. This means that the grade may be reduced by a certain % given tardiness. If you need more time to complete an assignment, you must let me know ahead of time. If you have a medical issue which affects your student engagement you need to provide documentation in support.

### **Students (and an Instructor!) with Special Needs**

If you are a student who requires accommodations or who has certain needs, please reach out to me. Given **you have an instructor with such needs**, I would like to thank you for your **patience with me**, as I also may require:

- ***Some classes may be delivered virtually (via pre-recorded lectures on D2L) which may be announced short-notice (please check your email by 9 am before coming to class – if going virtual I will have emailed by 9 am) – if this happens we won’t be missing class content so class is still on but available to view. This does not count as me canceling class.***
- ***I may need the window open for ventilation***

***My speech may sound a little hoarse or slurry (no I haven’t been drinking!), and I may be a little forgetful and lose my train of thought occasionally.***

Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at [rcpd.msu.edu](http://rcpd.msu.edu). Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to me at the start of the term and/or two weeks prior to the accommodation date (test, project, etc.). Requests received after this date may not be honored. If you require testing accommodations (e.g., additional time.) you must contact me and present your VISA ***at least two weeks before the exam date*** to schedule an alternative exam.

Please feel comfortable in prompting me if I forget to contact you about any necessary accommodations.

### **Academic Integrity**

The Spartan Code of Honor states, "As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing the endeavor to



build personal integrity in all that I do." In addition, Article 2.III.B.2 of the Student Rights and Responsibilities ([SRR](#)) states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." The Psychology Department adheres to the policies on academic honesty as specified in [General Student Regulations 1.0, Protection of Scholarship and Grades](#); [the all-University Policy on Integrity of Scholarship and Grades](#); and [Ordinance 17.00, Examinations](#).

Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the [www.allmsu.com](http://www.allmsu.com) Web site to complete any course work in this course. Students who violate MSU academic integrity rules may receive a penalty grade, including a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also the [Academic Integrity webpage](#).)

### **Generative A.I. Statement**

**Use Prohibited:** The use of generative AI tools (such as ChatGPT, DALL-E, etc.) is not permitted in this class; therefore, any use of AI tools for work in this class may be considered a violation of Michigan State University's policy on academic integrity, the Spartan Code of Honor Academic Pledge and Student Rights and Responsibilities, since the work is not your own. The use of unauthorized AI tools will result in a fail grade for that assignment at a minimum (at discretion of the Instructor).

### **Inclusive Environment**

MSU is committed to creating and maintaining an inclusive community in which students, faculty, and staff can work together in an atmosphere free from all forms of discrimination. The Office of Institutional Equity (OIE) reviews concerns related to discrimination and harassment based on sex, gender, gender identity, race, national origin, religion, disability status, and any other protected categories under the University Anti-Discrimination Policy ([https://www.hr.msu.edu/policies-procedures/university-wide/ADP\\_policy.html](https://www.hr.msu.edu/policies-procedures/university-wide/ADP_policy.html)) and Policy on Relationship Violence and Sexual Misconduct (<https://civilrights.msu.edu/policies/rvsm.html>). If you experience or witness acts of bias, discrimination, or harassment, please report these to OIE: <http://oie.msu.edu/>.

### **Limits to Confidentiality**

Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, may not be able to maintain confidentiality when it conflicts with their responsibility to report certain issues to protect the health and safety of MSU community members and others. As the



instructor, I must report the following information to other University offices (including the MSU Police Department) if you share it with me:

- Suspected child abuse/neglect, even if this maltreatment happened when you were a child,
- Allegations of sexual assault or sexual harassment when they involve MSU students, faculty, or staff, and
- Credible threats of harm to oneself or to others.

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual. If you would like to talk about these events in a more confidential setting you are encouraged to make an appointment with the [MSU Counseling Center](#).

### **Disruptive Behavior:**

Article 2.III.B.4 of the [Student Rights and Responsibilities \(SRR\)](#) for students at Michigan State University states: "The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned." Article 2.III.B.10 of the [SRR](#) states that "The student and the faculty share the responsibility for maintaining professional relationships based on mutual trust and civility." [General Student Regulation 5.02](#) states: "No student shall . . . interfere with the functions and services of the University (for example, but not limited to, classes . . .) such that the function or service is obstructed or disrupted. Students whose conduct adversely affects the learning environment in this classroom may be subject to disciplinary action."

### **Disclaimer**

**The instructor reserves the right to make any changes to the syllabus as deemed necessary. If changes are made, they will be announced in class and/or via email.**