

PNB 2XF3

Perspectives in PNB (Research Methods)

Instructors: Dr. Ayesha Khan

Teaching Assistants: Aneesh Bose, Michael Slugocki, Alva Tang, Michael Barone, Joseph Burns, Chantelle Lloyd

The aim of this course is to introduce you to the challenges, techniques, and insights of conducting research in Psychology, Neuroscience & Behaviour (PNB). The global issues of research methods will be explored from the perspective of the history of psychology and philosophy of science. This approach is intended to complement the specialized content knowledge gained through PNB 2XA3 (Psychology), 2XB3 (Neuroscience), and 2XC3 (Behaviour). A secondary goal is to introduce you to writing in the form of annotated bibliographies. An annotated bibliography contains a list of sources used to research a particular topic with the inclusion of a summary associated with each source.

Throughout the term, faculty members from across the department will deliver guest lectures that tie in with various themes of psychology, neuroscience, and/or behaviour. The aim of these lectures is to provide the “story behind the story” to give you insight into the research process in action and expose you to current research conducted in PNB.

Tutorials will help you to prepare for guest lectures where you will discuss assigned readings, next steps in research, and apply concepts to real-world problems.

You will also gain practice in delivering oral presentations by preparing your tutorial members for upcoming guest lectures and also through research proposals.

Class Meetings

Lectures: Tuesday & Wednesday,
3:30-4:20PM in ITB/AB102

Tutorials take place on Fridays.
You must attend your assigned
tutorial to earn full participation.

Assessment

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| 1. In-class Quizzes | 10% |
| 2. Tutorial participation | 15% |
| 3. Colloquium Preview | 20% |
| 4. Research Presentation 1
& Annotated Bibliography | 25% |
| 5. Research Presentation 2
& Annotated Bibliography | 30% |

Tutorial Timing & Location

T01	Fr	10:30 - 11:20	BSB/B205	T06	Fr	12:30 - 13:20	BSB/B206
T02	Fr	10:30 - 11:20	BSB/B206	T07	Fr	13:30 - 14:20	BSB/B205
T03	Fr	11:30 - 12:20	BSB/B205	T08	Fr	13:30 - 14:20	BSB/B206
T04	Fr	11:30 - 12:20	BSB/B206				
T05	Fr	12:30 - 13:20	BSB/B205				

Tutorial participation (15%): Your teaching assistant (TA) will expect active participation in tutorial and Avenue to Learn (AVE) online discussion forums to create a dynamic learning environment. If you have specific issues with this process you must speak with your TA as soon as possible. Every three weeks your TA will assign you a grade out of 10 using the rubric below.

CONTRIBUTION TO TUTORIAL/ ONLINE DISCUSSIONS					EVALUATING CONTRIBUTION	
	Excellent	Good	Fair	Poor	Excellent	Frequent & stimulating
(3 of 3)	10	8	8	4	Good	Frequent & valuable
(2 of 3)	6-8	4-6	2-4	0-2	Fair	Occasional & Forced
(1 of 3)	4	2	0	0	Poor	Infrequent & Irrelevant

Colloquium Preview (20%) - See rubric on p. 6

One group (per tutorial) will be responsible for preparing remaining students for each upcoming guest lecture. Your 25-30 minute presentation will include:

1. Presenting a brief biography, research background, and interests of the guest speaker.
2. Leading a discussion of journal article readings assigned by the guest speaker.
3. Preparing questions to facilitate discussions for generating research questions and how they could be answered.

It is also recommended that all students think about questions that could be asked to speakers on the day of their lectures.

Please refrain from contacting faculty to discuss their biographies

In-class Quizzes (10%): Quizzes are to follow each guest lecture (from Tuesday's class). Test materials may include course content from the previous week (core lecture and assigned readings).

iClickers will be used for all quizzes. Every student needs to purchase an iClicker and should bring it to each quiz date. iClickers can be purchased at the Campus Store and must be registered online with your name and a MacID (used to sign into AVE) in order to receive participation credit for your responses. Visit

<http://www.bookstore.mcmaster.ca/textbooks/iclicker-faq.html> for more information.

Your top 5 of 6 quiz grades will be counted to calculate your final quiz mark.

If you forget to bring an iClicker to class, you will not be able to provide your answers. Hard copy responses will not be accepted (sorry!).

Research Proposal & Annotated Bibliography (55%) - See rubric on p.4

For the first presentation, student groups will be given a case study in which they will identify research questions related to psychology, neuroscience and/or behaviour and also design a research proposal.

The second presentation will require groups to create a research proposal in pedagogy but within the field of psychology, neuroscience, and behaviour.

For both proposals, your 15 min presentation will include:

1. A description of the problem and current state of understanding in the literature.
2. Identification of a researchable question, a related hypothesis, and a prediction.
3. Description of technique(s) that will be used to answer this question.
4. A discussion of the impact of the potential findings.
5. Question and answer period from class.

Annotated Bibliography: Each research proposal will provide your group with the opportunity to practice writing an annotated bibliography. This is a useful habit to adopt whenever you begin preparation for a research paper/essay/presentation. The *bibliographic* portion contains information about each research source (the author, title, year of publication, etc.) The *annotation* is a brief summary of each source containing a thesis/research question/hypothesis, its method of investigation, its conclusion(s), and implication(s); as well as an evaluation of the source in connection to its relevance to the overall theme/research question of your research proposal.

Please submit **one group document online** (through an electronic dropbox on AVE) and via **hardcopy** during tutorial on the day of your presentation.

On the title page, please provide names and student numbers of all group members; course name, tutorial meeting time, professor's name, and TA name; the title, research proposal number (e.g., research proposal 1, research proposal 2), and date of submission. Include the rubric provided on the second page of your bibliography.

In order to conserve paper, double-sided printing is preferred.

Your annotated bibliography should match the number of members in your group.

That is, if your group has four members then your annotated bibliography will contain four references. If your group has five members then your annotated bibliography will contain five references¹. This is to ensure all members contribute equally in writing of the bibliography (i.e., each person should write one annotation associated with a single reference). You have the freedom to use more references in your oral presentation. However, select the most relevant papers for your bibliography.

You will use American Psychological Association (APA) format to cite sources. Please refer to the Publication Manual of American Psychological Association (6th ed., 2nd printing) located in the library. You can also consult the Online Writing Lab from Purdue University <https://owl.english.purdue.edu/owl/resource/560/01/> and also watch their YouTube channel <https://www.youtube.com/user/OWLPurdue>.

Group Work

Before you begin, think about how best to effectively complete course assignments that involve multiple people. Have a discussion about strategies that have worked in the past and also about those that did not! Clearly communicate group expectations about: [1] method(s) of communication, [2] expected response time, [3] deadlines, and [4] what to do if a group member does not complete his/her assigned task(s).

Also think about possible tools your group could use to work efficiently and effectively. Some examples of online (free) resources are provided below.

1. Google Drive: <https://www.google.com/drive/>
2. Doodle: <http://doodle.com/?home>
3. Slack: <https://slack.com/>

¹ While grading, your TA will randomly mark four annotations.

Annotated Bibliography Rubric

Annotated Bibliography	Grade
Source Selection (0 – 3 marks) Sources are highly relevant to the research topic	
Credibility (0 – 3 marks) Sources are from credible scholarly materials	
Research Process (0 – 3 marks for each source) Clear description of the research process (research question, hypothesis, method, result, implication)	
Insight (0 – 3 marks for each source) Clear demonstration and understanding of how each source relates to the research topic	
Bibliography (0 – 3) All citations are complete and in proper APA format	
Grammar (0 – 3) Each description is free from grammatical errors	
Total (Out of 36):	

Late assignments will be penalized 25% a day (weekends will count as one day). If you submit a McMaster Student Absence Form, please contact your tutorial TA directly.

All hard copies are due at the start of your tutorial. All electronic copies should be submitted before 10:30AM (matching with the first tutorial meeting) on the due date to your tutorial DROPBOX via AVENUE.

In this course we will be using a web-based service (Turnitin.com) to reveal plagiarism. Students will be expected to submit their work electronically to Turnitin.com and in hard copy so that it can be checked for academic dishonesty. Students who do not wish to submit their work to Turnitin.com must still submit a copy to their TA. No penalty will be assigned to a student who does not submit work to Turnitin.com. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, etc.). To see the Turnitin.com Policy, please go to:
<http://www.mcmaster.ca/academicintegrity>

Students are encouraged to visit the Centre for Student Development to improve their writing skills (MUSC B107 at x:24711). For information about the Writing Clinic and the Centre's other services, visit the Centre's website:
<http://studentsuccess.mcmaster.ca/academic-skills/writing-support-services.html>

Please read the NEW MSAF policy here:
http://academiccalendars.romcmaster.ca/content.php?catoid=13&navoid=2208#Requests_for_Relief_for_Missed_Academic_Term_Work

Do keep in mind that all of your assignments will be completed with other students. If you miss tutorial(s) without a valid reason and/or do not remain in constant contact with your group, your tutorial TA could FAIL you on a project.

Schedule of Topics

		TUESDAY	WEDNESDAY	FRIDAY
WEEK OF		Lecture	Lecture	Tutorial
Sept	7 th	Introduction to the Course	Warm Up to Research Proposal	Introduction to Tutorial - Preview Sign-up - Divide into Groups Proposal 1 Group Discussion
	14 th	The <i>Then & Now</i> of PNB	Quiz 0 (Practice Quiz) Defining Research	Preview 1
	21 st	Dr. Deda Gillespie	Quiz 1 The Scientific Method	Preview 2
	28 th	Dr. David Feinberg	Quiz 2 Presentation Design	Work on Proposal 1
Oct	5 th	Proposal Advising	Proposal Advising	Proposal 1 & Group Annotated Bibliography Due Today
	12 th	Mid-Term Recess No Classes This Week		
	19 th	Why I Should Think Twice About Medical School	Ethics in Research Dr. Karen Szala-Meneok	Preview 3
	26 th	Tyler Pollock	Quiz 3 Research in Pedagogy Dr. Joe Kim	Preview 4 Proposal 2 Group Discussion
Nov	2 nd	Dr. Scott Watter	Quiz 4 Science & The Media: Talk Nerdy to Me	Preview 5
	9 th	Dr. Jennifer Ostovich	Dissection of a TED Talk	Preview 6
	16 th	Dr. Barbara Fenesi	Quiz 5 Hot Topics in PNB	Preview 7
	23 rd	Dr. Paul Andrews	Quiz 6 Future of the Brain	Work on Proposal 2
	30 th	Proposal Advising	Proposal Advising	Proposal 2 & Group Annotated Bibliography Due Today
Dec	7 th	Student Presentation Competition**	No Class	No Tutorial

** Details will be provided in class.

Colloquium Preview Presentation

Group Members				Date:	
Preview Title:				Score:	/48
Missing	Poor (Below Expectation)	Fair (Changes Needed)	Good (Minor Errors)	Excellent (Meets/Exceed Expectations)	
0	1	2	3	4	
Presentation Slides		Score	Comments		
Narrative notes are engaging, concise and informative					
Images used are relevant and provide visual appeal					
Slides and narrative notes are complementary and do not compete with one another					
Structure and Content		Score	Comments		
Presents biography of guest speaker					
Sets context of discussion topic and identifies key issues of research					
Identifies rationale of assigned papers					
Demonstrates understanding of research hypothesis					
Conveys methodological approach used and how this helps to address the research question					
Describes main results and they support the hypothesis					
Draws audience to a clear conclusion of research findings					
Discussion Facilitation		Score	Comments		
Prepared good questions and provided good direction					
Created discussion equally across all group members					

Research Proposal Presentation

Group Members		Date:	
Preview Title:		Score:	/44
Missing	Poor (Below Expectation)	Fair (Changes Needed)	Good (Minor Errors)
0	1	2	3
Presentation Slides		Score	Comments
Narrative notes are engaging, concise and informative			
Images used are relevant and provide visual appeal			
Slides and narrative notes are complementary and do not compete with one another			
Structure and Content		Score	Comments
Sets context of discussion topic			
Describes current state of the literature and what we don't yet understand			
Identifies key researchable questions/hypotheses			
Explains the approach/ techniques that will be used to answer these questions			
Explains what results would support the research hypothesis			
Discusses the impact/main contribution of the potential findings			
Discussion Facilitation		Score	Comments
Facilitates Discussion			
Prepared questions provide a solid foundation for discussion facilitation			