PNB 2XF3
Perspectives in PNB (Research Methods)

Instructors: Dr. Ayesha Khan and Dr. Joe Kim
Teaching Assistants: Swapna Krishnamoorthy, Faria Sana, Barb Fenesi, Blake Anderson

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 précis and annotated bibliographies. A précis is a clear and concise summary of a text that accurately compresses a piece of writing into a thesis, outline, and conclusion while eliminating what is superfluous and keeping the core message of the work. 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: Monday & Wednesday, 8:30-9:20 in BSB/B135
Tutorials take place on Fridays.
You must attend your assigned tutorial to earn full participation.

**Assessment**

1. In-class Quizzes 10%
2. Tutorial participation 15%
3. Précis Writing 15%
4. Colloquium Preview 20%
5. Research Presentation 1 & Annotated Bibliography 20%
6. Research Presentation 2 & Annotated Bibliography 20%

**Tutorial Timing & Location**

| T01 | Fr 10:30 - 11:20 BSB/B205 |
| T02 | Fr 10:30 - 11:20 BSB/B206 |
| T03 | Fr 11:30 - 12:20 BSB/B205 |
| T04 | Fr 11:30 - 12:20 BSB/B206 |
| T05 | Fr 12:30 - 13:20 BSB/B205 |
| T06 | Fr 12:30 - 13:20 BSB/B206 |
| T07 | Fr 13:30 - 14:20 BSB/B205 |
| T08 | Fr 13:30 - 14:20 BSB/B206 |
**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. At the end of term, your top 3 of 4 tutorial grades will be counted to calculate your final tutorial participation mark.

<table>
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<th>CONTRIBUTION TO TUTORIAL/ ONLINE DISCUSSIONS</th>
<th>EVALUATING CONTRIBUTION</th>
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<td><strong>Excellent</strong></td>
<td>10</td>
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<td><strong>Good</strong></td>
<td>8</td>
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<td><strong>Fair</strong></td>
<td>6-8</td>
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<tr>
<td><strong>Poor</strong></td>
<td>0-2</td>
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**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 Monday’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** in order to receive participation credit for your responses. Visit [http://www.bookstore.mcmaster.ca/textbooks/iclicker-faq.html](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.

**Research Proposal & Annotated Bibliography (40%) - See rubrics on pp. 3 & 7**
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 key researchable questions.
3. Description of techniques that will be used to answer these questions.
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 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 names, and TA name; the title, research proposal number (e.g., research proposal 1, research proposal 2), and date of submission. Include the rubric provided below on the second page. In order to conserve paper, double-sided printing is preferred.

Your annotated bibliography should include a total of four key references. You have the freedom to use more than four references in your oral presentation. However, select four of the most relevant papers to include in 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 watch their YouTube channel https://www.youtube.com/user/OWLPurdue.

### Annotated Bibliography Rubric

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<th>Annotated Bibliography</th>
<th>Grade</th>
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<tr>
<td>Source Selection</td>
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<td>Sources are highly relevant to the research topic</td>
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<td>Credibility</td>
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<td>Sources are from credible scholarly materials</td>
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<td>Research Process</td>
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<td>Clear description of the research process (research question, hypothesis, method, result, implication)</td>
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<td>Insight</td>
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<td>Clear demonstration and understanding of how each source relates to the research topic</td>
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<td>Bibliography</td>
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<tr>
<td>All citations are complete and in proper APA format</td>
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<tr>
<td>Grammar</td>
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<td>Each description is free from grammatical errors</td>
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Précis Writing (15%): Your TA will assign a paper specific to your tutorial and for each précis. Each assignment will be submitted online (through an electronic dropbox on AVE) and via hardcopy during tutorial. On the title page, please provide your name and student number; course name, professor names, and TA name; the title, précis number (e.g., précis 1, précis 2), and date of submission; running head, page number, and word...
count (no more than 100 words). Include the rubric provided below on the second page. On the third page, please provide: a single sentence that summarizes the précis, the précis itself, and a reference in APA format. The original text should be listed in a reference list, but does not need to be cited.

At the end of term (see schedule on p. 5) you have the option to resubmit one (previously graded) précis for reevaluation. In this case, we will use the grade earned from any reevaluated assignment in combination with your other (non-reevaluated) précis to calculate your final course mark.

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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.**

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](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](http://studentsuccess.mcmaster.ca/academic-skills/writing-support-services.html)
## Schedule of Topics

<table>
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<tr>
<th>WEEK OF</th>
<th>MONDAY</th>
<th>WEDNESDAY</th>
<th>FRIDAY</th>
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<tr>
<td>Sep 1st</td>
<td>Lecture</td>
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<td>Sep 8th</td>
<td>Introduction to the Course</td>
<td>Précis Writing I (Dr. Shore)</td>
<td>Introduction to Tutorial - Preview Sign-up</td>
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<td>Warm Up to Proposal</td>
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<td>- Divide into Groups</td>
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<td><strong>Proposal 1 Group Discussion</strong></td>
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<td>Sep 15th</td>
<td><strong>Practice Quiz</strong></td>
<td>Annotated Bibliography Writing (Dr. Shore)</td>
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<td>Dr. Andrews</td>
<td><strong>Quiz 1</strong></td>
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<td>The <em>Then &amp; Now</em> of PNB</td>
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<td>Dr. Lewis</td>
<td><strong>Quiz 2</strong></td>
<td><strong>Work on Proposal 1</strong></td>
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<td>Oct 6th</td>
<td>Proposal Advising</td>
<td>Proposal Advising</td>
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<td>Oct 13th</td>
<td>Thanksgiving Holiday</td>
<td>Précis Writing II (Dr. Shore)</td>
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<td>Oct 20th</td>
<td>Dr. Day</td>
<td><strong>Quiz 3</strong></td>
<td><strong>Preview 4</strong></td>
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<td>History of Psychological Research</td>
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<td>Oct 27th</td>
<td>Dr. Watter</td>
<td><strong>Quiz 4</strong></td>
<td><strong>Mid-Term Recess</strong></td>
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<td>The Scientific Process</td>
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<td>Nov 3rd</td>
<td><strong>Principles of Scientific Analysis</strong></td>
<td>Research in Pedagogy</td>
<td><strong>Preview 5</strong></td>
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<td>Nov 10th</td>
<td>Dr. Goldreich</td>
<td><strong>Quiz 5</strong></td>
<td><strong>Preview 6</strong></td>
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<td>Science &amp; The Media</td>
<td><strong>Proposal 2 Group Discussion</strong></td>
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<td>Nov 17th</td>
<td>Dr. Rutherford</td>
<td><strong>Quiz 6</strong></td>
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<td>Talk Nerdy to Me: The Art of Science</td>
<td><strong>Option to Resubmit Précis Today</strong></td>
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<td>Communication</td>
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<td>Nov 24th</td>
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<td>Proposal Advising</td>
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<td>Dec 1st</td>
<td><strong>Student Presentation Competition</strong>**</td>
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**Details will be provided in class.**
### Colloquium Preview Presentation

<table>
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#### Presentation Slides

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- 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

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- 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

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<th>Comments</th>
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- Prepared good questions and provided good direction
- Created discussion equally across all group members
# Research Proposal Presentation

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<th>Group Members</th>
<th>Date:</th>
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<td>Narrative notes are engaging, concise and informative</td>
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<tr>
<th>Structure and Content</th>
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<tbody>
<tr>
<td>Sets context of discussion topic</td>
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<tr>
<td>Describes current state of the literature and what we don’t yet understand</td>
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<tr>
<td>Identifies key researchable questions/hypotheses</td>
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<td>Explains the approach/techniques that will be used to answer these questions</td>
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<td>Explains what results would support the research hypothesis</td>
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<tr>
<td>Discusses the impact/main contribution of the potential findings</td>
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<th>Score</th>
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<td>Facilitates Discussion</td>
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<tr>
<td>Prepared questions provide a solid foundation for discussion facilitation</td>
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