ARTS &
SCIENCE CO-OP

Student Poster Guide

Updated October 2017
The Purpose of Work Term Posters

An academic poster is a visual representation which concisely and creatively summarizes research or an experience you have taken part in. Academic posters are used across a variety of contexts including conferences, thesis classes, and dissertations; furthermore, they are often a requirement in Master’s programs and professional schools.

The work term poster is an integral part of the co-op learning experience; it will allow students to gain experience and practical skills in the design and creation of academic posters while reflecting on their work-term experience and fostering connections to their academic studies. These skills have a direct application in the field of Psychology, Neuroscience, Mental Health, and Health Studies, as well as the Physical and Environmental Sciences disciplines, and will greatly aid students in furthering their academic and professional development.

The purpose of the co-op work term poster is to:

- Develop technical and poster designing skills
- Develop the ability to formulate and present a coherent and succinct poster
- Develop organizational and analytical skills
- Gain an overview of the work term job and/or the employing operation
A variety of software programs can be used to design an academic research poster. You may use any program of your choosing, and your program choice will not affect your grade as long as you are able to fulfill the project requirements. Each program has its own benefits and drawbacks to consider; here is a comparison of a few of the most commonly used programs:

<table>
<thead>
<tr>
<th>Program</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adobe Suite:</strong></td>
<td>▪ Excellent for poster design</td>
<td>▪ Can be challenging to learn</td>
</tr>
<tr>
<td>Illustrator</td>
<td>▪ Image will remain consistent when printed—what you see is what you get</td>
<td>▪ Associated cost of software</td>
</tr>
<tr>
<td>Photoshop</td>
<td></td>
<td></td>
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<tr>
<td>InDesign</td>
<td></td>
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</tr>
<tr>
<td><strong>Microsoft</strong></td>
<td>▪ Easy to use</td>
<td>▪ Inflexible—affords less control</td>
</tr>
<tr>
<td>Powerpoint</td>
<td>▪ More widely accessible</td>
<td>▪ Designed for overhead projection</td>
</tr>
</tbody>
</table>

Others programs include Canvas, Publish-it, Corel Draw, and LaTeX. *Please note, you DO NOT have to download any of these programs onto your personal computer to complete this project.*

If you do not have access to any of these programs at home or on your personal computer, most can be accessed using UTSC computers in the computer labs or the library. To determine which UTSC computers have the software you would like to use, check the Information & Instructional Technology Services (IITS) Software for Students page: [http://www.utsc.utoronto.ca/iits/software-students](http://www.utsc.utoronto.ca/iits/software-students).
Poster Design Guidelines

- Important information should be readable from 2 meters away.
- Text should be clear and to the point—only 300 to 500 words.
  - Your poster should engage the audience to ask questions and discuss, do not try to cover everything in text!
- Leave a reasonable amount of open space between columns and around titles as it helps create focal points and direct the viewer’s eye.
- Use headings, bullets, and numbering to make your poster easy to read.
- Use a consistent and clean layout with effective use of graphics and colours.

Poster Size

- The dimensions of your printed poster should be 24” x 36” (2’ x 3’).
- Landscape or portrait orientation is acceptable.
- When designing your poster it is advisable to leave at least a ½” margin across all edges. As most printers cannot print directly to the edge of the page, graphics and text within a ½” of the pages’ edge may be cut off.

Text

- Use a non-serif font (e.g., Helvetica, Calibri) for the title and headings, and a serif font (e.g., Times New Roman, Palatino) for body text, as serif fonts are easier to read at smaller font sizes.
- It is advised to use a maximum of 2 font types throughout your poster to maintain consistency.
- Use bolder, larger fonts for headings.
- Use bullet points rather than blocks of text. Densely packed, high word-count posters are overwhelming to readers; aim to use 500 words or less.
- Use text boxes approximately 45-65 characters wide; see general font size guidelines below.
- Set line spacing of all text to be exactly 1 when using super- or sub-scripts, this will help to preserve the aesthetics.
- Do not assume readers will know what specific acronyms related to your research area or work term mean; mention the full name followed by the acronym in parentheses. The acronym can be used from that point forward. E.g., “assessing the use of the Neuropsychological Assessment Battery Screening module (NAB-S) in...”
Graphics

- You may use illustrations, figures, graphs, charts, and photographs taken while on work term (with consent); visual components help attract and inform viewers more effectively
- Give your graphs and figures titles and informative descriptions to guide the reader
  - Y-axis labels aligned horizontally are much easier to read
  - Axis labels should be in sentence case
  - Don’t give your graphs coloured backgrounds, grid lines, or boxes
- Ensure details on graphs and illustrations can be viewed from 6 feet away; this includes axes labels, figure legends, and numbers on axes

Reference anything that is not yours, this includes images
- Use web graphics with caution, as most are low resolution and will appear pixelated when printed. The ideal image resolution for posters is 300 pixels per square inch
- Save photos as jpg or png and line art/graphs as png
- Avoid using dark or textured backgrounds as they make reading your poster difficult
- Design the layout so that a person viewing your poster can easily understand the sequence of the information
- The conclusion is often the most important part, it is suggested that this section is placed at the top of the rightmost column
- Chose a colour scheme that will allow the viewer to easily read your poster
  - Most effective posters use 2-3 colours and dark type on a light background
  - You can use these tools to aid in choosing colours that complement each other well and make for easy reading: http://colorschemedesigner.com/csd-3.5/ and http://www.colorschemer.com/online.html

Avoid busy or distracting backgrounds, they detract from the information on your poster!

The title should be in a legible and professional typeface

Choose a colour scheme that only includes 2-3 colours, and doesn’t make your poster difficult to read!

Headings should be relatively consistent in size, capitalization, and color

Posters should only include 2 font types, and body text should always be in a serif font for ease of reading

Avoid using web graphics with a resolution below 300 dpi and try to maintain the original aspect ratio of images so they don’t appear distorted!

This poster is too text heavy! Remember to use bullet points rather than blocks of text

Aligning text boxes and keeping spacing consistent will allow the reader to follow the sequence of your poster, rather than questioning where they should begin

Co-op Work Term at the Zakzanis Clinical Neuropsychology Lab

Candice Richardson, Candidate Hons B.Sc, University of Toronto Scarborough
Konstantine Zakzanis, Professor, Department of Psychology, University of Toronto Scarborough

WORK TERM SUMMARY
Organization: Zakzanis Clinical Neuropsychology Lab
Where: University of Toronto Scarborough
Position: Research Assistant
Supervisor: Konstantine Zakzanis
Duration: May - August 2016

Responsibilities
- Enrolled and pre-screened all participants in ongoing research studies using SONA
- Administered neuropsychological assessment batteries and standardized tests according to study protocols
- Entered data from paper-and-pencil questionnaires into SPSS spreadsheets for data analysis

PROJECT
The relationship between neuropsychological assessment tools on measures of attention using traditional paper-and-pencil measures, particularly the Stroop effect and DARTS, were compared to a computerized spatial filtering task which is believed to be an ecologically valid measure of attention. Furthermore, the different assessment measures were compared in healthy undergraduates and in psychiatric patients. It was anticipated that greater psychopathology would be associated with poorer performance on these neuropsychological tests of attention, especially the more ecologically valid DARTS measure. This study served to explore a gap within the literature. But it examined the relationship between paper-and-pencil tests and virtual reality measures of attention not only within healthy undergraduates, but also within a clinical population.

ACADEMIC CONNECTION

Skills Developed
- Team Work—learned to work as part of a diverse team of lab members, including graduate students, professors, and undergraduates
- Interpersonal Communication—during the course of my employment, I learned how to more effectively engage with students, faculty, and research coordination to create an atmosphere conducive to laboratory research
- Adaptability—I learned how to be innovative in order to adapt to unforeseen circumstances; this allowed the lab to run smoothly regardless of extraneous problems that arose

An Example of what NOT to Do

Avoid using web graphics with a resolution below 300 dpi and try to maintain the original aspect ratio of images so they don’t appear distorted!

The title should be in a legible and professional typeface

Choose a colour scheme that only includes 2-3 colours, and doesn’t make your poster difficult to read!

Headings should be relatively consistent in size, capitalization, and color

Posters should only include 2 font types, and body text should always be in a serif font for ease of reading

Avoid using web graphics with a resolution below 300 dpi and try to maintain the original aspect ratio of images so they don’t appear distorted!
Form, writing style (grammar, spelling, etc.) are all very important. Envision your target audience as a person who is not technically trained but with a general understanding of technical issues. The poster must not be excessively technical or overly simplistic, it must be appreciated by both a technical and non-technical audience.

Where possible, relate what you have learned in academic studies to your work term experience. The poster should demonstrate that you have successfully integrated concepts from your academic studies and earlier work experiences with your latest work experience.

Students should begin gathering the materials for their work-term poster after the first 4 weeks on the job. This may include keeping a diary of activities, keeping notes on specific study protocols, or keeping track of development processes. You are encouraged to discuss your poster ideas with your employer/supervisor. Their experience and familiarity with the work environment may be helpful in determining potential content areas to include in your poster. If in doubt about the suitability of your content or proposed subheadings, speak to your Co-op Program Supervisor.

**Required Components**

Regardless of work term type/job title, all posters must include the following sections:

**Title**
- Boldface, sentence case (to ensure that trade names, proper nouns, and words that need to be italicized are not obscured). E.g., *The effect of Slimband use on weight loss in Homo sapiens*
- Short and draws interest
- Specific content will vary depending on work term

**Authors and Affiliations**
- Your full name and institutional affiliation (University of Toronto Scarborough and employing organization, see examples below)
- You may also choose to include the names and affiliations of your supervisor(s), and/or other researchers or department members working on the study/project

**Graphics**
- This may include data displays, illustrations, images, or photographs taken on work-term (See possible examples on page 9 & 10)
**Work Term Summary and Reflection**
- The name and location of the organization, your position, supervisor, and duration/timeframe of work term
- A description of the employer organization
- Your responsibilities
- How your tasks interrelate with and contribute to the activities of the department and organization as a whole
- What you developed personally and professionally, and how your experience has contributed to clarifying career and/or personal long term goals

**References**
- References should be cited in proper APA format, but should be kept to a minimum (your experience is what is important!)
- In-text citations (if used) should be the same size as the body text, but it is generally acceptable that the reference section of the poster can be quite a bit smaller (18 pt font) to create more space

**Acknowledgements (OPTIONAL)**
- You may want to include a section to thank individuals for specific contributions; for example, statistical advice, laboratory assistance, comments on earlier versions of your poster, funding sources, etc.
Suggested Headings by Work Term Type

Please note, these are only suggested headings to help give students an idea of what sections to include on their posters. You may use any headings that you feel are appropriate based on your work term. Furthermore, you do not have to use the headings that are suggested below your specific job category, and are expected to personalize these suggestions: e.g., if you completed a work-term at Ontario Shores you may choose to use “Ontario Shores” instead of “Employer Organization”.

### Research (with study data)

**Title**
- Should briefly convey the scope of the investigation, study design, and goal

**Authors and Affiliations**

**Work Term Summary**
- The name and location of the organization, your position, supervisor, and duration/timeframe of work term
- Your responsibilities and contributions to the activities of the department/organization

**Background**
- Brief outline of primary literature
- Why the study was conducted
- Hypotheses

**Methods**
- Briefly describe the experimental equipment and procedure, sample method and size, inclusion criteria, etc.
- Statistical tests used

**Results**
- Numerical information about analyses should be displayed graphically if possible
- Qualitative and descriptive results
- Important findings

**Conclusion**
- Most important take-home message of the study
- Theoretical/practical implications
- Importance of findings for the field

**References**

**Graphics/Illustration Suggestions**
- Photos or labels drawings of experimental setup or organism studied
- Neuroimaging scans
- Figure or flow chart of experimental design
- Graphs, figures, and tables from data analysis outputs
# Project Based Work Terms, Programs, Administrative Positions, Other

<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th><strong>Authors and Affiliations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Work Term Summary &amp; Employer Organization</strong></td>
<td>• The name and location of the organization, your position, supervisor, and duration/timeframe of work term</td>
</tr>
<tr>
<td></td>
<td>• A description of the employer organization, relevant departments and initiatives</td>
</tr>
<tr>
<td></td>
<td>• Mission statement or company philosophy</td>
</tr>
<tr>
<td><strong>About the Program or Projects</strong></td>
<td><strong>Your Responsibilities</strong></td>
</tr>
<tr>
<td>If you worked as part of a program (e.g., camps, therapeutic recreation, etc.):</td>
<td>• Your responsibilities, tasks, and duties</td>
</tr>
<tr>
<td></td>
<td>• Projects you worked on during your work-term</td>
</tr>
<tr>
<td></td>
<td>• How your tasks interrelate with and contribute to the activities of the department/organization as a whole</td>
</tr>
<tr>
<td>If you worked on certain projects:</td>
<td><strong>Academic Connection</strong></td>
</tr>
<tr>
<td></td>
<td>• You may choose to summarize a specific project you worked on, perhaps you helped to develop a new measure, validate a new scale, or survey a new trail?</td>
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<tr>
<td></td>
<td>• Describe the process, any issues and how they were solved, etc.</td>
</tr>
<tr>
<td></td>
<td>• Integrate past coursework and theory into current project(s)</td>
</tr>
<tr>
<td></td>
<td>• How have your academic studies aided you in your work term?</td>
</tr>
<tr>
<td></td>
<td>• What have you learned from your work-term experience that will help to further your academic development?</td>
</tr>
<tr>
<td><strong>Self-Reflection</strong></td>
<td><strong>References</strong></td>
</tr>
<tr>
<td></td>
<td>• Reflection on experience</td>
</tr>
<tr>
<td></td>
<td>• Personal and professional skills developed</td>
</tr>
</tbody>
</table>

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## Graphics/Illustration Suggestions by Placement Type

<table>
<thead>
<tr>
<th><strong>Project Based Work Terms</strong></th>
<th><strong>Programs</strong></th>
<th><strong>Administrative Positions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>E.g. general work term in a hospital/department/lab, Environment Canada, etc.</td>
<td>E.g., March of Dimes Summer Program, Therapeutic Recreation, Camps, etc.</td>
<td>• Photos taken during work term</td>
</tr>
<tr>
<td>• Photos taken during work term</td>
<td>• Photos taken during work term</td>
<td>• Snapshots of spreadsheets/new software you learned to use</td>
</tr>
<tr>
<td>• Images of specific project you worked on, etc.</td>
<td>• Images of supplies used in the program</td>
<td>• Pictures, logos, or blueprints of projects you worked on</td>
</tr>
<tr>
<td></td>
<td>• Program logo,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Snapshot of promotional flyers, etc.</td>
<td></td>
</tr>
</tbody>
</table>

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## Printing

It is crucial that you carefully revise and edit your work before spending money on having the poster printed. Prior to having your completed 2’ x 3’ poster professionally printed, print a letter sized draft and ask yourself the following questions:

- Can you read the type?
- Are these the colours you really want?
- Does it look too busy?
- Do my main points stand out?
- Are there any spelling or grammatical errors?

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Co-op at Baycrest: Department of Culture, Arts, & Innovation

Candice Richardson, Candidate, Hons. BSc., University of Toronto Scarborough

The Department of Culture, Arts, & Innovation

Baycrest Vision:
We will transform the experience of aging through leading innovations in brain health, wellness promotion, and approaches to care that enrich the lives of older adults.

The Department of Culture, Arts & Innovation supports a holistic vision of health and wellbeing that embraces spirituality, innovation and the arts. Tapping into creative potential whether storytelling, writing, art, music, or theatre improves physical and emotional health, enhances confidence and self-esteem, enriches relationships, and strengthens morale.

Work Term Overview

Organization: Baycrest, Department of Culture, Arts, & Innovation
Where: Baycrest Health Sciences
Position: Summer Intern
Supervisor: Aviva Babins
Duration: May to September 2015

Responsibilities
- Assisted in creating budget justifications, protocols, and documents to submit to various funding opportunities
- Supported team in developing an application for older adults that integrates fine arts with brain fitness
- Actively contributed to the participatory design sessions
- Updated and re-designed the Culture, Arts, & Innovation portion of the corporate website
- Effectively supported a multidisciplinary team comprised of the CAI manager, neuropsychologists, and art education experts

ArtOnTheBrain

ArtOnTheBrain (AoTB) is a mobile health solution for older adults with and without cognitive impairment.

AoTB is a visual arts-based application designed for tablets.

Created by Aviva Babins and Dr. Kelly Murphy, AoTB is an evolution of the Baycrest ArtWalk, a self-guided tour which utilizes the artworks displayed at Baycrest Health Sciences to create an enjoyable and stimulating recreational activity for care partners and recipients.

Skill Development

Interpersonal Communication: I learned how to effectively engage with diverse clientele, including department members, healthcare professionals, older adults, and patients

Time Management: With tight submission deadlines, daily responsibilities, and new projects always starting, I learned how to more effectively manage my time while going above and beyond expectations!

References
2. About Us. [Website]. http://www.baycrest.org/about/
# Co-op Work Term at Rouge Valley Health System

**Candice Richardson, University of Toronto Scarborough**

## Work Term Summary

**Organization:** Rouge Valley Health System  
**Where:** Centenary Hospital  
**Position:** Administrative Assistant  
**Supervisor:** Joe Smith  
**Duration:** May to September 2015

## Responsibilities

- Greet and register clients upon arrival at the clinic  
- Schedule and confirm medical appointments and communicate messages for medical staff and patients  
- Maintain the appointment book and ensure the clinic flows smoothly  
- Coordinate consultations, lab and diagnostic tests, and appointments  
- Manage the physician’s schedule (on-call time, Emergency Room rounds, walk-in clinic, meetings and speaking engagements)  
- Start client charts and keep their records current and up-to-date

## New Software Learned

While on work term at Rouge Valley Health System, I learned how to use, file, and maintain patient charts. Part of my responsibilities entailed chart preparation in which I updated patients’ paper charts, which are used by physicians in clinic, with updated medical information, lab test results, and relevant medical information.

Furthermore, I learned how to use and effectively navigate the Electronic Patient Record (EPR) system: a systematized collection of electronically-stored patient health information in digital format. These records include patient demographics, medical history, medications and allergies, immunization status, and test results.

![Figure 1: A snapshot of the Electronic Patient Record system](image)

## Academic Connection

During my time at Rouge Valley Health System, I was able to translate the knowledge I have gained from course work in health studies into a more practical setting in the work environment.

This work term allowed me to utilize the knowledge I have gained from taking courses such as Biomedical Ethics, Health, Aging, and the Lifecycle, and Human Physiology, while implementing the concepts and theories I have learned in a health-care setting.

## Professional Development

**Adaptability**  
With staff schedule changes and operating system upgrades, I learned how to effectively accomplish my day-to-day tasks with flexibility.

**Organization**  
I learned how to effectively organize meetings, appointments, and workflow to maximize time and efficiency.

**Teamwork**  
I was able to gain experience working with a diverse team of health care professionals, aiding my personal and professional development.
Neuropsychological tests of attention: Paper-and-pencil versus virtual reality tests

Candice Richardson, Candidate, Hon. BSc., Konstantine Zakzanis, Ph.D., C. Psych
University of Toronto Scarborough

Work Term Summary
Organisation: Zakzanis Clinical Neuropsychology Lab
Where: University of Toronto Scarborough
Position: Research Assistant
Supervisor: Konstantine Zakzanis
Duration: May to September 2016

Background
Neuropsychological tests are used to predict real world functioning, but with debate regarding the generalizability of results from standardized, laboratory-based tests, there has been a movement toward adopting approaches that are more predictive of real world functionality.

Hypothesis: greater psychopathology will be associated with poorer performance on tests of attention, especially the more ecologically valid virtual reality (VR) measure.

Methods
Undergraduates were recruited using SONA while patients receiving outpatient treatment at a psychiatric clinic in Toronto were referred to the study by their doctor. Informed consent was obtained, and subjects completed 4 neuropsychological tests:

- Neuropsychological Assessment Battery Screening Module (S-NAB) Form 1 was used to measure functioning across 5 major cognitive domains.
- Symbol Digit Modalities Test (SDMT) was used to measure selective and divided attention.
- Assembly Line Task (ALT) is a computer-based series of tasks used to measure selective and sustained attention.
- The Mini International Neuropsychiatric Interview (M.I.N.I.) was used to classify subjects into 3 groups based on levels of psychopathology.

Results
Regression analyses were used to estimate the relationship between each dependent variable and the possible confounds of age, education, and gender. A series of Welch’s ANOVAs were used to test for statistically significant differences between groups.

Table 1: Tests of Between Group Effects

<table>
<thead>
<tr>
<th></th>
<th>F (d.f.)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-NAB Attention Domain Raw Score</td>
<td>1.565</td>
<td>0.13</td>
</tr>
<tr>
<td>ALT Selective Attention Total Correct</td>
<td>0.40</td>
<td>0.68</td>
</tr>
<tr>
<td>ALT Sustained Attention Total Correct</td>
<td>1.565</td>
<td>0.68</td>
</tr>
<tr>
<td>SDMT Raw Score</td>
<td>3.394</td>
<td>0.07</td>
</tr>
</tbody>
</table>

- Significant effect of group membership was only found for SDMT raw scores (F(2,43) = 3.95, p = .043)
- Post-hoc Tukey’s HSD tests showed that the ID group had higher scores on the SDMT than the control and IND groups, but differences failed to reach significant levels.

Conclusion
- Test scores failed to differentiate between groups regardless of whether traditional paper-and-pencil administration techniques or VR measures were utilized.
- It is important to supplement these assessment measures with tests of effort to ensure the validity of results before utilizing them to predict real-world behavior.

References