Course Objectives and Learning Outcomes:
The primary objective of this course is to provide students with a practical introduction to undertaking scientific research and provide experience with presenting science information in a public forum. Emphasis will be placed on presentation to a scientifically educated, but non-specialist audience. Feedback will be provided from both experienced speakers as well as graduate student peers.

Learning outcomes and expectations for learners who complete this course include:

- Understand the requirement for professional conduct in a graduate program and how to successfully progress in graduate school
- Understand the need for ethical scientific research and conduct
- The role of the scientific method in research and how to generate research questions and hypotheses that can lead to publications
- How to efficiently generate high impact short oral presentations and scientific posters
- How to use statistics in research and generate data constructs for manuscripts and posters/presentations
- How to generate award winning scientific posters - framework, templates and content
- Understand and implement the tools needed to generate scientific manuscripts

Course Text:
Some suggested texts for additional reading are listed below and handouts will be provided electronically or by hard copy throughout the course. The book by Michael Alley covers most of the topics we will cover. The two books by Robert A Day are the most entertaining ones on the subject i.e. easy to read!

Suggested readings:

Course Instructors:

We are available for questions or feedback at any time via email or in person (by chance or appointment).

Professor Matt Teeter: matthew.teeter@lhsc.on.ca
Professor Terry Thompson: thompson@lawsonimaging.ca

Grading Scheme:

A1: CV and reference letter 20%
A2: Two minute talk 20%
A3: Getting ready to write 10%
A4: Poster and 60 s summary 40%
Attendance and Participation 10%

Attendance, Participation and Other Policies:

The course is designed to be interactive and having peer-feedback in improving presentation skills is vital for the class. Communication is the transfer of information between two people. Part of the skills being learned is that of asking questions; as such we encourage active participation in the lectures and feedback sessions for the presentations. If for some legitimate reason you cannot attend a particular lecture, please email us to let us know.

Attendance Policy:
All classes, laboratories, and tutorials are mandatory, unless otherwise stated. Any student who, in the opinion of the course co-ordinator is absent too frequently from class or laboratory periods in any course, will receive a failing grade after due warning has been given in writing from the course co-ordinator and Graduate Chair.

Cheating and Plagiarism Policy:
Students are encouraged to work together, but each student must take total responsibility for his/her submitted work. Students must write their laboratory reports and final projects in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. University policy states that cheating, including plagiarism, is a scholastic offence. The commission of a scholastic offence is attended by academic penalties which might include expulsion from the program. If a student is caught cheating, there will be no second warning.

All written reports and projects may be subject to submission for textual similarity review to commercial plagiarism detection software under license to the University for the detection of plagiarism. All reports will be included as source documents on the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between the University of Western Ontario and Turnitin.com (http://www.turnitin.com).

See the School of Graduate and Postdoctoral Studies Scholastic Offence Policy: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf

Use of Electronic Devices Policy:
No electronic devices (e.g., cell phones, MP3 players) may be used during lectures or examinations. The use of non-programmable calculators is permitted during examinations; programmable calculators are prohibited during examinations.

OWL Internet/Bulletin Board Policy:
It is the student’s responsibility to read the course website posted on Western’s on-line learning management system, OWL (https://owl.uwo.ca/portal). This includes the course bulletin board and all information and/or assignments posted about the course. If the student fails to act on information that has been posted on the course site and does so without a legitimate explanation (i.e., those covered under the illness/compassionate form), then there are NO grounds for an appeal.
Request for Assignments Extensions:
Students are advised to inform the course co-ordinator as soon as possible regarding an extension for assignment submissions due to medical reasons or other compassionate reasons. Extensions will only be granted by the course co-ordinators at their discretion.

Absence Due to MedicalIllness:
Students must familiarize themselves with the Policy on Accommodation for Medical Illness: https://studentservices.uwo.ca/secure/index.cfm
If you are unable to meet a course requirement due to illness or other serious or compassionate circumstances, you must provide valid medical or other supporting documentation to the course co-ordinator immediately. It is the student's responsibility to make alternative arrangements with the co-ordinator to complete missing course requirements.

A student requiring academic accommodation due to illness, should use the Student Medical Certificate: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf when visiting an off-campus medical facility or request a Record's Release Form for visits to Student Health Services. The form is available at: http://www.health.uwo.ca/services/students/policies.html. The release form will allow the course co-ordinator to confirm with Student Health Services that a student’s absence from regular attendance or inability to meet scheduled course commitments is due to medical reasons. The nature of the illness will not be divulged by Student Health Services.

Graduate Students’ Mental Health and Physical Wellness:
As part of a successful graduate student experience at Western, students are encouraged to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your graduate degree. For example, to support physical activity, all students, as part of their registration, receive membership in Western's Campus Recreation Centre: http://www.uwo.ca/campus_life/athletics.html

All facets of extracurricular campus life in which graduate students can participate are available on this URL: http://www.uwo.ca/campus_life/arts_culture.html

Information regarding health and wellness-related services available to students may be found at http://www.health.uwo.ca. Students seeking help regarding mental health concerns are advised to speak to someone in whom they feel comfortable confiding, such as their graduate supervisor, their program director (Graduate Chair), or other relevant administrators in their unit. Campus mental health resources may be found at: http://www.health.uwo.ca/mental_health/resources.html

Accessibility to the Course and Course Materials:
Please contact the course co-ordinator if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.
# Fall 2017 Course Outline

Location: Thompson Room, B2-075, St. Joseph’s Health Care

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>21</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>Introductions, course outline, and professional conduct in graduate school</td>
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<tr>
<td></td>
<td>28</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>CVs, reference letters, and scholarship applications</td>
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<tr>
<td>October</td>
<td>5</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>Preparing short talks</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>2 minute talks</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>2 minute talks</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>Ethical research and scientific misconduct</td>
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<tr>
<td>November</td>
<td>2</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>The scientific method and hypothesis generation</td>
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<tr>
<td></td>
<td>9</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>Research questions and data visualization</td>
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<tr>
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<td>16</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>Authorship, journal selection, and citation metrics</td>
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<td>23</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>Preparing poster presentations</td>
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<tr>
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<td>30</td>
<td>9:30-11:30</td>
<td>B2-075</td>
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<tr>
<td>December</td>
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<td>B2-075</td>
<td>Poster presentations</td>
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<tr>
<td></td>
<td>14</td>
<td>9:30-11:30</td>
<td>B2-075</td>
<td>Poster presentations</td>
</tr>
</tbody>
</table>

**Assignment 1 (20%):** Common CV and reference letter, due October 5th

**Assignment 2 (20%):** 2 minute talks, October 19th and 19th

**Assignment 3 (10%):** Getting ready to write, due November 23rd

**Assignment 4 (40%):** Poster presentations, November 30th, December 7th and 14th