COMP-5111-FA Graduate Seminar

Department of Computer Science

Fall 2023

Instructor Information

Instructor: Dr. Garima Bajwa

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Office Hours: M/W; 1:00 PM - 2:30 PM or by appointment

Course Identification

Course Number: COMP-5111-FA

Course Name: Graduate Seminar

Course Location: AT2001

Class Times: Th; 2:30 pm to 5:30 pm

Prerequisites: None

Course Description/Overview

This is a required course for the MSc program in Computer Science. It provides basic knowledge and skills for conducting independent scientific research. Through this course, students will learn what the CS researchers are doing, learn about critical and creative thinking, understand the differences between qualitative and quantitative approaches and research lifecycle.

The course will cover several advanced topics in computer science. Invited guest speakers will give research talks in the seminar in their field of expertise and emphasize effective independent research approaches. The instructors may also conduct some discussions with students and references of the research topics will be provided.

Course Learning Objectives

By the end of this course, students will be able to understand the depth of various resource areas. The students will be able to pick one advanced research topic and will be able to perform in-depth research on the topic and show the ability to identify possible new areas for investigation.

Specifically:

- Understand the new research avenues in Computer Science

- Understand the critical components of research

- Understand the diversity in Computer Science topics

- Understand the ethical issues related to academic integrity

Course Resources

*Course Website(s)*

* D2L

*Required Course Text*

* No required text

Course Schedule/Outline

Week 1 – Sept 7, Introductions - meet with faculty members & information about the seminar

Week 2 – Sept 14, *Tenille Brown* (Bora Laskin Faculty of Law, Lakehead)

Week 3 – Sept 21, *Muditha Heenkenda* (Department of Geography and the Environment, Lakehead)

Week 4 – Sept 28, *Michael Jaynes* (Argonne National Laboratory, Illinois, US)

Week 5 – Oct 5, TBD

Week 6 – Oct 12*, Fall Study Week, No classes*

Week 7 – Oct 19, TBD

Week 8 – Oct 26, *PengCheng Xi* (National Research Council Canada)

Week 9 – Nov 2, *Santi Phithakkitnukoon* (Chiang Mai University, Thailand)

Week 10 – Nov 9, *Mostafa Fouda (Idaho State University)*

Week 11 – Nov 16, *Jagannadh Vempati* (Siemens Technology, Princeton, US)

Week 12 – Nov 23, DevFest Conference Hackathon

Week 13 – Nov 30, *Prakash Kolan* (Samsung Research America, Texas, US)

Assignments and Evaluations

|  |  |  |
| --- | --- | --- |
| Assignment/Test | Date | Value |
| Attendance (including the class activity after talk) | weekly | 60% |
| Class Participation | weekly  | 20% |
| Final Research Report | Finals week | 20% |

***Late Assignments***

Late submissions will be accepted two days late, with 10% penalty per day and will receive only half credit (50%) after that when turned in. In-class quizzes will not be accepted late.

Submissions will not be accepted after the last class. Any evidence of group participation will be interpreted as academic dishonesty unless it is a group challenge activity/handout.

Example of an Evaluation Rubric for Research Paper

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Element** | **85-100** | **75-84** | **60-74** | **< 60** |
| **Writing Mechanics****( /20)** | * conforms to APA standards (headings, manuscript header, margins, page numbers, referencing style)
* good spelling and grammar
* very good sentence structure
* paragraphs are well planned and have excellent flow
 | * conforms to APA standards (headings, manuscript header, margins, page numbers)
* limited spelling or grammatical errors
* good sentence structure and paragraph flow
 | * some mistakes in APA format
* some spelling and grammatical mistakes
* sentences are somewhat difficult to understand
* paragraphs have too many ideas
 | * mistakes in APA format
* mistakes in spelling and grammar take away from understanding
* sentences are poorly structured
* paragraphs are confusing
 |
| **Research/ Referencing ( /20)** | * excellent referencing within the text
* large number of journal articles
* wide variety of sources (different journals, books
 | * good referencing within the text
* more than 5 journal articles
* variety of sources (different journals)
 | * missing some referencing in the text
* only 5 journal articles
* limited variety of sources (multiple use of
 | * very limited referencing within the text
* less than 5 journal sources (or includes web sources)
 |
|  | and other information sources) |  | same journal or edited volume) | - no variety of sources |
| **Content ( /40)** | * all aspects of the assignment are completed
* information is accurate, up to date and goes beyond what is required
* information is synthesized and connected to course material, as well as connections being made between literature sources
* argument is well constructed and connects strongly to conclusion
 | * all aspects of the assignment are completed information is accurate and up to date
* good synthesis of information and connection between literature sources
* well constructed argument and connects to conclusion
 | * missing some required elements of the assignment
* some information is inaccurate or out of date
* the information is summarized but not well connected to literature
* argument is difficult to follow to the conclusion
 | * several missing elements
* information is often inaccurate
* there is limited connection between literature or purpose of paper
* limited development of argument; no real conclusions
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Course Policies

Attendance Policy:

If you are not able to attend the lecture, then you must inform the instructor ahead of time (at least by one working day). By not doing so, will result in a penalty of 3% in your final grades.

Email Policy:

Please use only your Lakehead University email for all communication. Include your course title as a prefix in the subject line of your email [Template: COMP-5111-FA: {Subject}]. Send a reminder email if you do not get a response within 48 hours.

Collaboration/Plagiarism Rules

Avoid Plagiarism at all costs. Use citations for ideas that are not yours; Use quoted statements and references; Follow the [Student Code of Conduct - Academic Integrity](https://www.lakeheadu.ca/students/student-life/student-conduct/academic-integrity) - SECTION III: VIOLATIONS OF THIS ACADEMIC INTEGRITY CODE IDENTIFYING OFFENCES (BREACHES OF ACADEMIC INTEGRITY).

If you have any questions, please reach out to me for clarification.

Additionally, posting any course materials (assignments, quizzes, exams, presentations, lecture recording, supplementary resources) to third-party websites without permission is prohibited.

University Policies

Accommodation for Students with Disabilities:

Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please visit: http://studentaccessibility.lakeheadu.ca