

**SFU – School of Computing Science  
Semester: Spring 2009**

**Professor: D. Beyer**

**Outline of Directed Reading course (CMPT 894) for \_\_\_\_\_ (\_\_\_\_\_)**  
Name Stud-No

**Title: Software Verification**

**Objective/Description:**

**This course explores cutting-edge research results in the area of software verification. Students will read and discuss recent articles on static program analysis, software model checking, test-case generation, randomized testing, and web-service verification. A special focus will be the emerging unification of program analysis and software model checking in practice, and the symbiosis of testing with program analysis. In a semester project, the students will explore current tools that implement the latest research results in this area.**

**Topics:**

- **Static program analysis**
- **Software model checking**
- **Randomized testing**
- **Automatic test-case generation**
- **Web-service verification**

**Grading:**

**Reading assignments, presentation, discussion: 40%, project and report: 60%**

**Textbooks:**

**No text book readings. Recent research articles will be provided on the course web page.**

**References/Additional Reading:**

**None.**

**Student signature** \_\_\_\_\_

**Instructor Signature** \_\_\_\_\_

**Breadth Approval** \_\_\_\_\_

**Grad Director Approval** \_\_\_\_\_