Logic II: introduction to non-classical logics
Dr. Jacob Archambault

Course Description
This course expands on material learned in Logic I: classical and modal logic. Where the first course introduced classical logic along with its modal expansions, the logics learned in this course are more naturally thought of as rivals of classical logics: all of them deny some of the valid consequences of classical logic, and thus imply that classical logic gets it wrong in certain cases. The course aims to introduce the student to the philosophical issues involved in these logics, while instilling technical proficiency in each of them.

Required Texts

Course Requirements
Homework (hurdle requirement) – Each week, I will select three problems (one on proof theory, one on semantics, and one in metatheory) for you to hand in. Assignments are due at the beginning of each class. Students who fail to turn in four or more problem sets automatically fail the course. In addition, at least two-thirds of all problems must be completed correctly for a passing grade.

Final Paper (50%) – Through the course, we will be reading articles, both classic and contemporary, on some of the philosophical issues to which different non-classical logics pertain. At the end of term, you are to hand in a paper engaged with some topic broached in the course. The paper may be philosophical in nature, or it may be technical.

Final Exam (50%) – a cumulative exam on the technical material covered in the class.

Syllabus

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<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
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| Week | Priest, ch. 9: Logics with Gaps, Gluts and Worlds I  
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| Week | Priest, ch. 23: Logics with Gaps, Gluts and Worlds II  
| Week | Priest, ch. 10: Relevant Logics I  
| Week | Priest, ch. 24: Relevant Logics II  
| Week | Priest, ch. 11: Fuzzy Logics  
| Week | Priest, ch. 25: Fuzzy Logics II  
| Week | Priest, ch. 11a: Many-Valued Modal Logics  
Archambault, Jacob. Powers Presentism. |