

Week-by-week Overview

See the [Course Assessments page](#) for the exact due date and time of each assessment.

Reading Week -- No Classes

Week of	Slides	Annotated Slides	Lecture Recordings	Quizzes	Worksheets and Additional Materials	Additional Material
Sep 01	Introduction ↓ Propositional & First-order Logics ↓	First-order Logic ↓	Thursday Lecture ↗ Passcode: x?RhKr6QC%			
Sep 08	First-order Logic (continued from Week 1) Expressing Knowledge ↓			Quiz 1 (due Sep 16)	FOL Study Checklist ↓ Expressing Knowledge Study Checklist ↓	Some hints on converting English to Logic . Some questions involving converting English to Logic and then doing resolution. Along with solutions to some of these. Optional readings on verification of FOL representations: • What Is an Ontology? ↗ • Theorem Proving in the Ontology Lifecycle ↗ • A New Look at Ontology Correctness ↗ Optional: Peano arithmetic ↗ and its non-standard models ↗
Sep 15	Resolution ↓ Computational Aspects of Reasoning ↓ Horn Clauses ↓	Resolution ↓ Computational Aspects of Reasoning ↓ Horn Clauses ↓	Resolution: • Part 1 ↗ • Part 2 ↗ • Part 3 ↗ Computational Aspects of Reasoning ↗ Horn Clauses: • Part 1 ↗ • Part 2 ↗	Quiz 2 (due Sep 16)	Summary Slides ↓ Worksheet ↓ Worksheet-annotated ↓ Prover9 Files: • q1(a)(b).in ↓	Some rules you can use in proving logical equivalence ↗ Prover9-Mace4 ↗

Week of	Slides	Annotated Slides	Lecture Recordings	Quizzes	Worksheets and Additional Materials	Additional Material
					• q1(c).in ↓	
Sep 22	Defaults and Non-monotonic Reasoning ↓	Defaults and Non-monotonic Reasoning ↓	Reasoning under Closed-World Assumption: • Part 1 ↗ • Part 2 ↗ • Part 3 ↗ Circumscription: • Part 1 ↗ • Part 2 ↗	Quiz 3 (due Sep 23)	Guest Lecture (ASP) ↓ Guest Lecture - annotated ↓ Worksheet ↓ Summary_ (Week 4) ↓ Worksheet-annotated ↓	Optional readings: More on Answer Sets ↓ and Applications of ASP ↓
Sep 29	Default and Auto-epistemic Logics ↓	Default and Auto-epistemic Logics ↓	Default Logic • Part 1 ↗ • Part 2 ↗ Auto-epistemic Logic ↗	Quiz 4 (due by Sep 30)	Summary_ (Week 5) ↓ Worksheet ↓ Worksheet-annotated ↓	Optional Material: • International Workshop on Non-Monotonic Reasoning ↗ (proceedings of the past workshops have several papers on applications of non-monotonic reasoning). • A programming language designed based on Default Logic for reasoning about Law ↗
Oct 06	Representing Actions and Change ↓ Automated Planning ↓		Representing Actions and Change: • Part 1 ↗ • Part 2 ↗ Planning: • Part 1 ↗ • Part 2 ↗	Quiz 5 (due by Oct 7)		

Week of	Slides	Annotated Slides	Lecture Recordings	Quizzes	Worksheets and Additional Materials	Additional Material
Oct 13	Automated Planning (continued from last week) Intro to PDDL ↓ Semantic Web and Knowledge Graphs ↓	PDDL Example Files: • gripper domain ↓ • gripper problem ↓ Semantic Web and Knowledge Graphs ↓	Planning: • Part 3 ↗ • Part 4 ↗ • PDDL ↗ Intro to Semantic Web ↗ Intro to RDF and Ontologies ↗ Intro to Knowledge Graphs ↗	Quiz 6 (due Oct 14)	Planning and Sequential Decision Making ↓ (By Prof. McIlraith) PDDL Tutorial ↓	• ICAPS ↗ (International Conference on Automated Planning and Scheduling) • Planning.Wiki ↗ • PDDL Online Editor ↗ • PDDL tutorial ↗ ↗
Oct 20	Review Slides ↓ Concept Map ↓ Shared Google doc ↗ Review Session Recording Test 1					
Oct 27	READING WEEK					
Nov 03	Description Logics and Rules ↓ Presentation by Prof. McIlraith	Description Logics and Rules ↓	Description Logics and Rules: • Part 1 ↗ • Part 2 ↗ • Part 3 ↗ • Part 4 ↗	Quiz 7 (due Nov 4)		
Nov 10	Presentations					
Nov 17	Presentations Review					
Nov 24	Test 2					