

Canadian Government and Politics
Political Science 230E.001
University of Western Ontario 2002-03

WINTER SEMESTER ASSIGNMENTS

The assignments give you a chance to apply the concepts from Game Theory and Canadian Politics to other situations in Canadian politics. Since the key concepts are covered in these assignments, material from this book will not be tested on the final examination.

To help you prepare the assignments, tutorials will be held during the scheduled tutorial hour on Thursdays as listed below. Assignments are then due in-class at the next lecture. Each assignment should be three or four pages, typed and double-spaced. Assignments will be marked out of ten. Late assignments will be penalized at the rate of one point for each day, or portion of a day, they are late.

Assignment #1 – The Prisoner’s Dilemma

Based on Game Theory and Canadian Politics, ch. 3. Tutorial: January 30, due February 4.

Think of a situation in Canadian politics or public policy that looks like a two-person prisoner’s dilemma game. Describe why the situation works like the prisoner’s dilemma. Produce a game matrix identifying the two players, their possible strategies, and the payoffs for each outcome. Identify the Nash equilibrium. Describe how the “game” might be changed to make the pareto-optimal outcome a Nash equilibrium.

Assignment #2 – The Coordination Game

Based on Game Theory and Canadian Politics, ch. 4. Tutorial: February 6, due February 11.

Think of a situation in Canadian politics or public policy that looks like a two-person coordination game. Describe why the situation works like a coordination game. Produce a game matrix identifying the two players, their possible strategies, and the payoffs for each outcome. Identify the Nash equilibrium.

Assignment #3 – The Condorcet Winner

Based on Game Theory and Canadian Politics, ch. 7. Tutorial: February 13, due February 18.

Imagine that, in the next provincial election, voter preferences are as follows:

36% prefer McGuinty over Eves and Eves over Hampton.
34% prefer Eves over McGuinty and McGuinty over Hampton.
30% prefer Hampton over McGuinty and McGuinty over Eves.

Produce a table of preference orderings, as in Table 7.1 of the text. Produce a table of pairwise comparisons of the candidates based on those preferences, as in Table 7.2. Who is the Condorcet winner, if any? Who wins in a plurality contest? Who would win in the kind of two-step vote used in French presidential elections (the second round is a run-off between the top two candidates from the first round – assume everyone votes on both ballots)?

Now, imagine that an Eves ad campaign succeeds in making some people think McGuinty is “not up to the job” of being premier, and voter preferences become:

36% prefer McGuinty over Eves and Eves over Hampton.
17% prefer Eves over McGuinty and McGuinty over Hampton.
17% prefer Eves over Hampton and Hampton over McGuinty.
10% prefer Hampton over McGuinty and McGuinty over Eves.
20% prefer Hampton over Eves and Eves over McGuinty.

Produce a table of preference orderings, and a table of pairwise comparisons of the candidates based on those preferences. Who is the Condorcet winner, if any? Who wins in a plurality contest? Who would win in a French-style two-step vote? Give some advice to Eves and McGuinty based on this analysis.

Assignment #4 – Invading a Two-Party System

Based on Game Theory and Canadian Politics, ch. 9. Tutorial: March 6, due March 11.

Since the early 1970s, Quebec provincial elections have pitted the PQ against the Liberals. The major issue has been Quebec’s constitutional future, with the PQ advocating separatism and the Liberals federalism. Public opinion has split 40% for separatism, 40% for federalism and 10% undecided. The two parties both advocate a large role for government in the economy and social services.

Recently, a new party, the Action démocratique du Québec, has won a few by-elections and been strong in public opinion polls. The ADQ refuses to discuss Quebec’s constitutional future. Instead, it advocates a sharply conservative program on reducing government’s role in the economy and social services, combined with tax cuts.

Produce a Downsian model of competition between the PQ and Liberals. Advise the ADQ’s dynamic, young leader, Mario Dumond, on how the next provincial election campaign should unfold.