It is my view that a 4th-year project course could have a very positive impact on the CS program at Waterloo. I am picturing something like what they do in ECE and Systems Design.

Here are some possible benefits:
1. If it’s true that the employers are looking for employees with people skills, a major group project would give them experience to that end.
2. A “project exhibition” event could attract attention from local media, employers, other faculties, prospective students.
3. A capstone course might be viewed as an attractive goal, and help in the marketing of our degree program to prospective students.
4. It gives the students an opportunity to build something substantial that they can call their own. In other words, I think they might like it.

Here are some of the possible drawbacks:
1. More work for professors. It seems that most project courses require each group to find a prof that will supervise them. Time investment can vary widely: 1 hr per month, to 2 hrs per week. It’s not clear that there is an easy way to award teaching credit for it.
2. Students will not be able to take as many upper-year courses, since the project course will displace other courses.
3. Overload students who are taking “workload outlier” courses at the same time.
4. There could be some timing issues with streaming. The project exhibition could be in the winter term, but not every student hits 4B in the winter term. And what if group members end up off-stream from each other?
5. How to assign marks to individual members of a group? Do they all get the same mark?

Our Current Project Course Options

CS 499R: Readings in CS (optional)
Department Consent Required

CS 499T: Honours Thesis (optional)
The student will undertake new analysis, synthesis, measurement, or experimentation to produce a document that demonstrates a depth of understanding of a topic that goes beyond what is obtained in a standard undergraduate education.
[Note: Offered for CR/NCR only. CS 499R is recommended. A detailed thesis proposal and names of a supervisor and reader are required.]
Department Consent Required
Other University CS Programs

McGill
COMP 396: Faculty of Science Project (optional)
Independent research project with a final written report... Departmental permission required. Students cannot be supervised by the same instructor for two 396 Science courses... Note: Enrolment may be limited. Students are advised to start the application process well before the start of the term and to plan for an alternative course in the case that no suitable project is available. Individual projects will be suggested each term which may have project-specific prerequisites. http://www.mcgill.ca/science/ours/396/
COMP 400: Independent Project course (optional)
A computer related project, typically a programming effort, along with a report will be carried out in cooperation with a staff member in the School of Computer Science.
Notes: with permission only

Toronto
CSC 490: Capstone course (optional)
In this course, students work on a project that brings together ideas from across their undergraduate education and serves as a culmination or "capstone" to their program.

A small group of students is enrolled in the course together, and while each has their own project, they are all working in the same theme area. Themes change from year to year. In 2006, students explored building new interfaces for games, using a variety of state-of-the-art novel hardware technologies available in the University of Toronto's graphics and human-computer interaction laboratory.

Students do not need to find a professor to work with for a capstone; they simply apply for the course. [currently, the theme is a web-based software project management portal]
CSC 494/495: Independent Project course (actually just 1 course, but allows students to get credit for 2 projects)

Guelph
CIS 4000: Applications of Computing Seminar (required for Honours degree)
This capstone course of the B.Comp. program provides students an opportunity to combine their area of application with their studies in computing via a course project and seminar series. Application areas discussed in any particular semester will depend on areas of application selected by students. Students are required to present their work in a seminar and also to participate in the critical analysis and review of the work of other students taking this course.
CIS 4900: Comp. Sci. Project
Planning, developing and writing a research proposal under individual faculty supervision. The course, in continuation with CIS*4910 provides senior undergraduates an opportunity to pursue an independent course of study. The topic selected will be determined by agreement between the student and the faculty member with expertise in the area. (Instructor consent required)

CIS 4910: Comp. Sci. Thesis
This course is a continuation of CIS*4900. The student will conduct and write an undergraduate thesis under the individual supervision of a faculty member. In addition the student is required to present his/her work in a seminar and also participate in the critical analysis and review of the work of other students taking this course. (Instructor consent required)

Western
CS 4490Z: Undergrad Thesis (required for Honours Specialization in CS)
A project or research paper completed with minimal faculty supervision. An oral presentation plus a written submission will be required.
Antireq: 4460Z (Bioinformatics Thesis), 4470Y (Software Maintenance and Configuration Management, involves a group project), 4480Y (Game Development Project, involves a group project)

CS 380F/G/Z: Project course (seems like the old version of CS 4490Z)
Permission from the department, plus: Computer Science 2212A/B/Y and registration in the Specialization or Major in Computer Science. To be allowed into this course, the student must have found a topic and a willing departmental supervisor before the end of the add period.

Alberta
CMPUT 495: Honours Seminar (required for Honours in CS, taken in 3rd year)
There is a requirement to take at least 3 courses with projects
CMPUT 400: Industrial Practicum, 400, 410, 412, 414, 415, 422, and 466 (all courses with a project component)

Ottawa
CSI 4900: Honours Project, mandatory for Honours BSc with specialization in CS (but not for “Major in CS”?)
A one-semester project, individual or for a small group, carried out under the supervision of a faculty member. Projects are posted and selected in the preceding semester. The students are required to participate in project presentations scheduled at the end of the semester.