How to submit a Proposal for a Computer Science capstone project

In the second and fourth-year capstone project courses, students work in teams of 3 to 5 (second year) and 7 to 15 (fourth year) on projects proposed by industry or other organizations over 3 months. Each team is supervised by a faculty member acting as the technical director and assisting or directing students to appropriate technical expertise. You will act as the client.

The projects may be general in software development or more specialized projects in software engineering.

A good capstone project has the following attributes:

- It is open-ended: students must be able to exercise a fair amount of choice in the design and implementation strategies. This is not a case in which students execute a given design. However, you may impose reasonable constraints on the design and implementation, such as conformance to the tools and strategies you already use.
- It is feasible within the timing and effort allocated to the project course: 3 or 5 students working part-time for 13 weeks represents about 210 to 1000 hours or even much more in the case of 7 to 15 students. At the same time, there is enough work to be done to engage the team until the middle of April.
- Most of the work can be done at OC and does not require students to be present at your location.
- No critical business outcome on your side relies on this being successful; this is a backburner project that you thought, "If someday we have some spare time, wouldn't it be nice to try to … [fill in the blank]."
- The topic falls within the boundaries of software development and software engineering.
- You must dedicate some time to explain the problem to the student team and to help evaluate progress (1 hour per week at least) and at least once at the end of each term. There may be more opportunities along the way if you wish to mentor the team.
- The project is not confidential, and open-source licenses will be used (MIT, GPL, etc.). Although the resulting Intellectual Property can belong to you, the students need to be able to write reports and make presentations to instructors and peers at OC for grading (an IP agreement can be developed additionally).
- Submit a project proposal by filling in the forms linked above (in either Microsoft Word or Adobe Acrobat) and email to capstones [dot] okanagan [dot] bc [dot] ca. See below for further instructions. You may find some inspiration in the accompanying examples.

The first page will provide information about your project; the second page provides more detail about the people with whom they would work.

Background: Briefly explain the domain and the context in which you are trying to solve a software development problem. A few sentences will suffice.

Objectives: Briefly explain what you'd like the students to resolve, the problem, some constraints (e.g., financial), quality attributes (response time, interoperability, etc.), and possible leads on ideas...

Major Deliverables: Explain what you would need to see to declare success in April: a prototype, a model, a computer simulation, a validated design solution, a set of blueprints, etc.…

Special Considerations: You may want to include the following:

- Any special equipment and tools needed.
- Required interfaces to already existing elements you have.
- The need for a formal Intellectual Property agreement with OC and the students (our generic agreement can be developed later)

The second page contains information about this project's contact person(s).

Submit your proposal by sending the completed form CapstonePartnerProposalForm.pdf to [capstones [dot] okanagan [dot] bc [dot] ca](capstones [dot] okanagan [dot] bc [dot] ca). Please use the subject line: "Capstone Proposal…". We will gladly review your submission and contact you for further discussion. Feedback will typically be given within a week and no later than early January.

Please note that this is very different from hiring a co-op student; this course is situated within an authentic context with realistic problems, but the students are not employees. Also, this offer does not constitute a subcontract for design work with OC; neither the students nor the instructors act as design consultants. Please be aware that some projects may fall short of your and our expectations; it is a learning experience. Finally, if you wish to engage in a joint research project with OC, please note that such a situation would involve graduate students and researchers funded by NSERC, IRAD, BCIC or others.